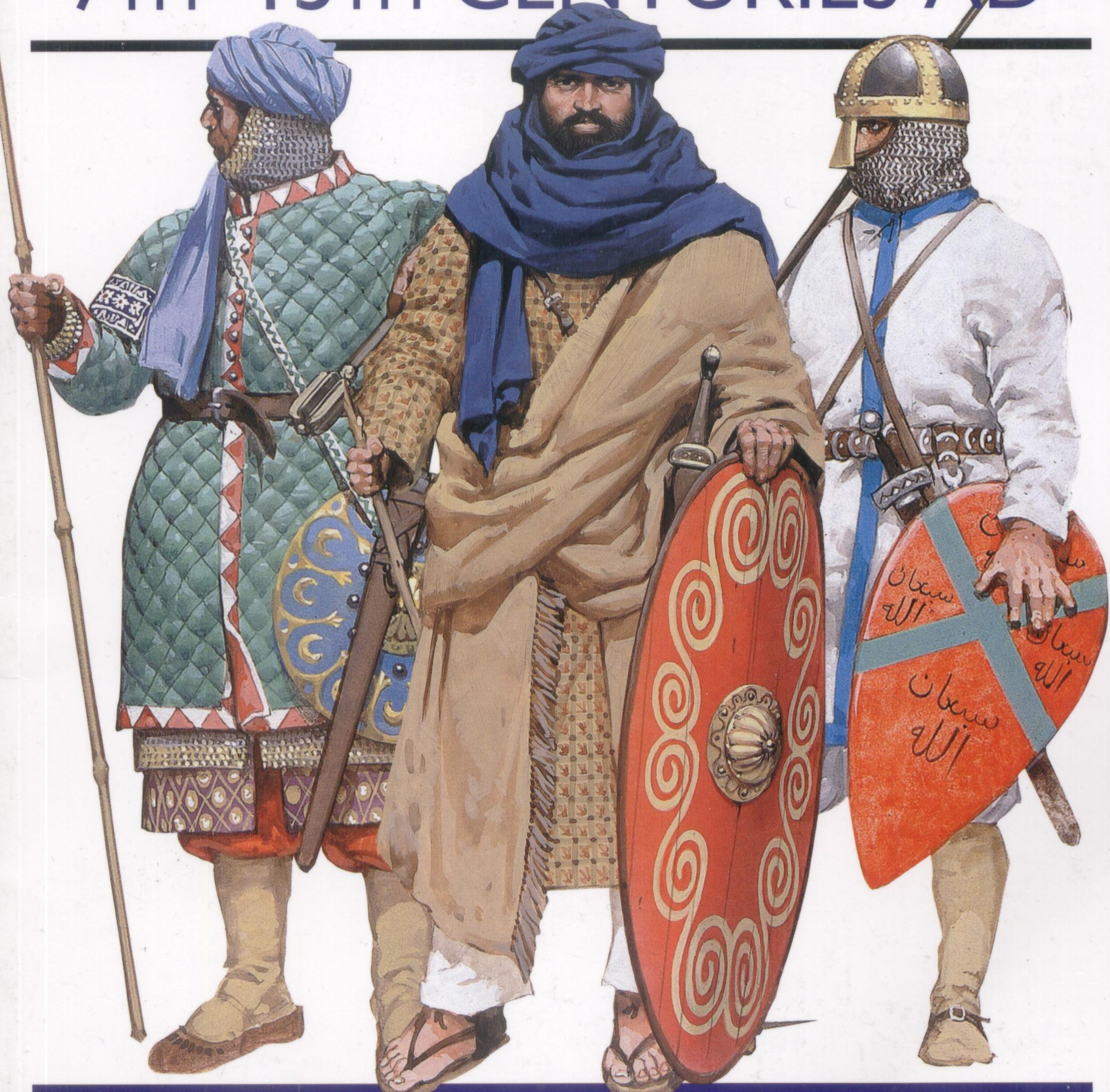
OSPREY MILITARY

MEN-AT-ARMS 348

THE MOORS THE ISLAMIC WEST 7TH–15TH CENTURIES AD



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First published in 2001 by Osprey Publishing, Elms Court,
Chapel Way, Botley, Oxford OX2 9LP, United Kingdom
Email: info@ospreypublishing.com

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ISBN 1 85532 964 6

Editor: Martin Windrow
Design: Alan Hamp
Origination by Valhaven Ltd, Isleworth, UK
Printed in China through World Print Ltd

01 02 03 04 05 10 9 8 7 6 5 4 3 2 1

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Dedication

For Andrew Harris; the best cook in Woodhouse Eaves, and a friend.

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THE MOORS: THE ISLAMIC WEST 7th–15th CENTURIES AD

INTRODUCTION



The Arrest of St Aventinus, in a late 12th-century carving on the door of the parish church in the French Pyrenean village of St Aventin (see also title page). According to local legend, Aventinus was martyred by invading Moors in AD 732. Since the Islamic frontier was still only a short distance away on the far side of the mountains this representation of Andalusian Moorish warriors is probably more accurate than most. The central figure has a head cloth or *litham*, wears some form of semi-stiff armour perhaps of felt, and carries a short sword without quillons. The presence of a man with a round shield, a withered foot and a wooden leg is unexplained; intriguingly, he features in other illustrations from this part of southern France, including mosaics in Lescar Cathedral. (Author's photograph)

North Africa and the Iberian peninsula were in cultural and economic decline for centuries before the Muslims arrived in the early 8th century. Nevertheless some of the old Roman roads remained in a usable condition, while merchant ships still plied the Mediterranean in small numbers. Here the Mediterranean islands continued to serve as stepping stones along the sealanes, and it was Islamic civilisation which would dominate most of these islands from the 8th to 11th centuries. On land the Islamic *thughur* or frontier zones developed a distinct cultural identity but, unlike the Christian side of the frontier, they rarely achieved a separate political identity. The ultimate population advantage lay firmly with the more primitive north. In fact the Muslim Andalusians remained an outpost of an Islamic world with a relatively low population and rate of reproduction. As a result the burgeoning population of Christian Europe would eventually doom Moorish Andalusia.

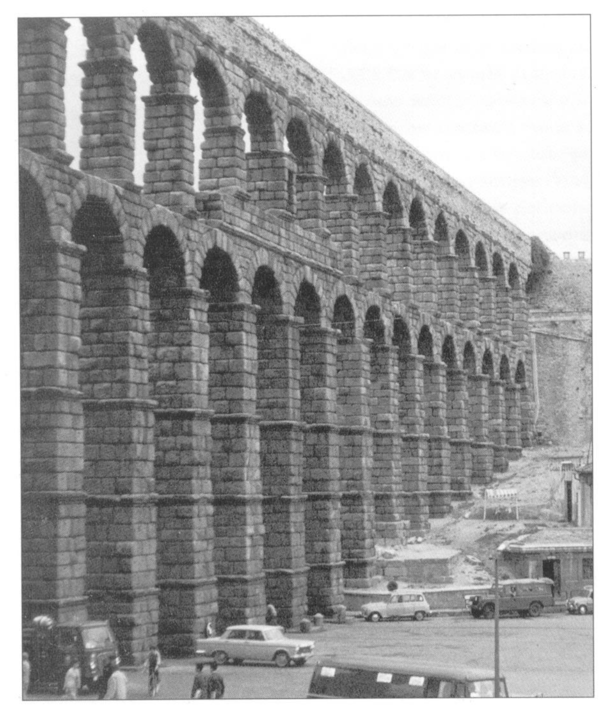
Several peoples were involved in the remarkable military history of the Islamic West. The Berbers predominated throughout North Africa and the Sahara. The powerful Berber Jarawa tribe, for example, dominated what is now Tunisia and eastern Algeria, where Romano-Byzantine civilisation was little more than a memory. In military terms Berber tribal cavalry were a numerous force, though notably poorly equipped. Both infantry and cavalry largely relied on javelins, while tribal footsoldiers also made considerable use of slings.

Further south lay the vast Sahara desert, most of whose scattered peoples were Berber in speech though often African in appearance. Here the introduction of the camel in the early medieval period meant that the Sahara gradually became a bridge between North Africa and sub-Saharan Africa. This in turn allowed Islam to spread deep into western and central Africa, while enabling black African warriors to play a dramatic role in southern European history.

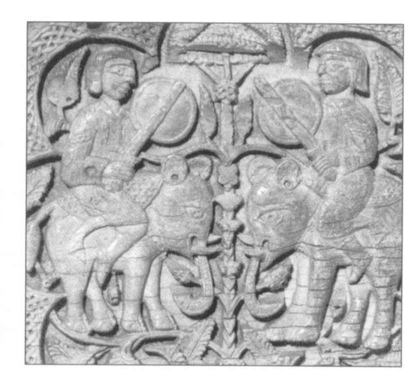
The Byzantines were a spent force by the time the Muslim Arabs invaded North Africa. There was, however, another important but often overlooked people in the area – the Jewish population. Most were Berbers who had converted to Judaism, sometimes as entire tribes, and in some parts of the Moroccan mountains these Jewish Berbers dominated surrounding pagan tribes. Judaised Berbers may have been raiding Visigothic Iberia before the Muslim Arabs arrived, perhaps in support of the persecuted Iberian Jews; and it has even been suggested that parts of southern Spain were controlled by Jewish warriors, either local or North African, when the Muslims reached Morocco.

The Germanic Visigothic kings of Iberia had expelled the last

Byzantine garrisons except for those on the Balearic islands. To the north the largely pagan Basques remained a major military problem for the Visigoths, and beyond the Visigoth-held region of Narbonne, north of the Pyrenees, lay the warlike but Christian Franks. Little is known about the early 8th-century Visigothic army, which may have had a profound influence upon military developments in subsequent Islamic Andalusia. It does, however, seem likely that Romano-Byzantine military traditions of cavalry warfare survived more strongly in Visigothic Iberia than in most other Germanic Western European states. In structural terms the late Visigothic army consisted of the ruler's own elite *cominatus* plus levies led by a local nobility – a form of military organisation that would have been difficult to integrate into Arab Islamic forces recruited in a different way. Similar problems may have been found when the Muslims crossed the Pyrenees into southern France, where a Gallo-Roman aristocracy still clung to many aspects of Roman civilisation.







Carved ivory box made for Abd al-Malik al-Muzaffar in AD 1005. This represents the culmination of a style of very detailed ivory carving in which the figures are highly naturalistic and show several significant differences from the art of the Islamic Middle East. Most obvious is the fact that the warriors are bare-headed, while their clothing has much in common with Western Europe. (Cathedral Treasury, Pamplona, Spain)

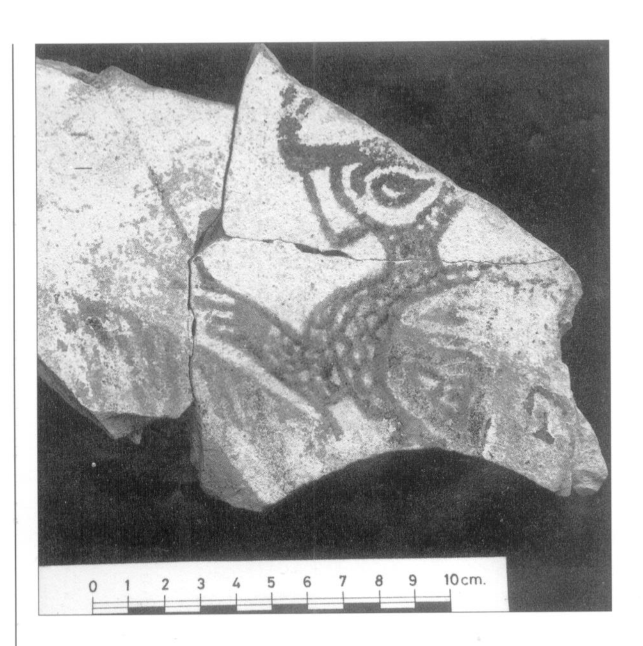
OPPOSITE **The Roman aqueduct leading into the fortified upper city of Segovia brought water from the Rio Frio, 17km away. It was apparently maintained in working order until the 11th century, Segovia being an important frontier fortress under Abd al-Rahman III, the Umayyad Caliph of Cordoba (AD 912–961). This was a time when, despite the huge wealth and military power of Andalus, the primitive Christian states of the north were already pushing into the relatively underpopulated central plateau of Iberia. (Author's photograph)**

CHRONOLOGY

643–702	Islamic conquest of North Africa.
c.700	Rise of pagan empire of Ghana in West Africa.
711–21	Islamic conquest of Iberia.
750	Overthrow of Umayyad Caliphate of Damascus by 'Abbasids.
755	Separate Umayyad dynasty established in Cordoba.
827	Start of Islamic conquest of Sicily.
909	Establishment of Fatimid Caliphate in North Africa.
10th C	War between Umayyads of Andalus & Fatimids for control of Morocco.
972	Fatimid Caliphate moves to Egypt.
1031	Overthrow of Umayyad dynasty; start of *taifa* 'Little Kingdoms' period.
1040s	Formation of Murabit movement in Mauretania.
1076	Murabitun overthrow kingdom of Ghana.
1085	Castilians conquer Toledo.
1086–90	Murabitun conquer Andalus.
1120s	Formation of Muwahhidun movement in Morocco.
1145–47	Muwahhidun defeat Murabitun in Morocco; second *taifa* period in Andalus.
1172	Muwahhidun conquer most of Andalus.
c.1200	Rise of Islamic empire of Mali in West Africa.
1212	Muwahhidun defeated by Christian coalition at Las Navas de Tolosa.
1227–30	Fragmentation of Muwahhid state.
1236–48	Christians conquer all Andalus except Granada.
1250	Marinid dynasty established at Fez.
1299-1358	Wars between Marinids of Morocco & Ziyanids of Algeria.
1415	Portuguese seize Ceuta.
c.1450	Height of Islamic Songhai empire in West Africa.
1492	Spanish conquer Granada, invade North Africa.

THE CONQUEST

The tiny Arab Islamic armies which conquered vast regions of the Middle East and Central Asia were the finest field forces of their day (see MAA 255, *Armies of the Muslim Conquest*). By the end of the 7th century

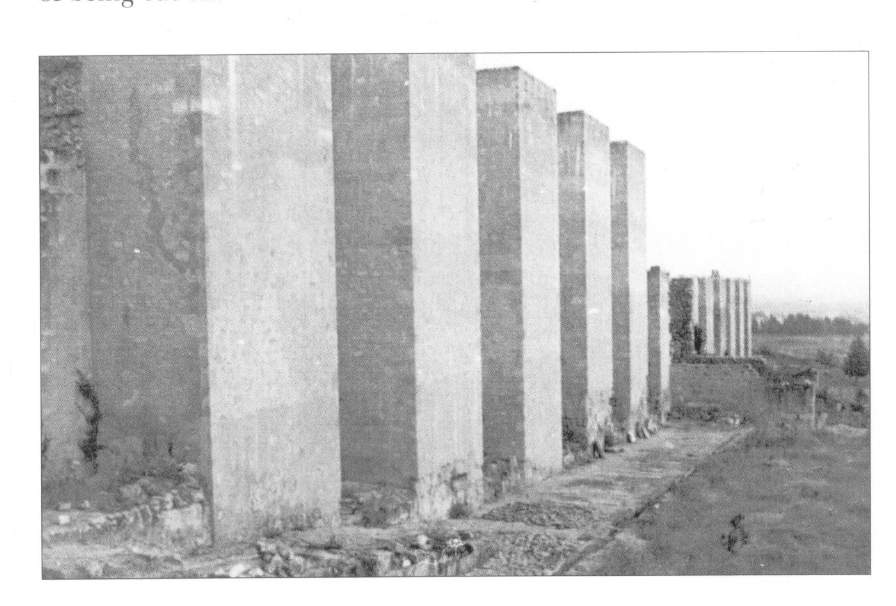


Fragment of a painted stucco or ceramic wall panel found in the ruins of the palace at Madina al-Zahra near Cordoba which – like a more damaged picture of an infantry archer – dates from the 10th century. It is very important because it shows a cavalryman in a *dir'* full mail hauberk with long sleeves and an integral *mighfar* coif over his head and face. He probably has a round helmet, perhaps with a crest at the front and a broad nasal. Most significant of all, he carries a large kite-shaped shield two centuries before this was adopted by the Normans. (Site Museum, inv.MA/UM-95, Medina Azahara, Spain)

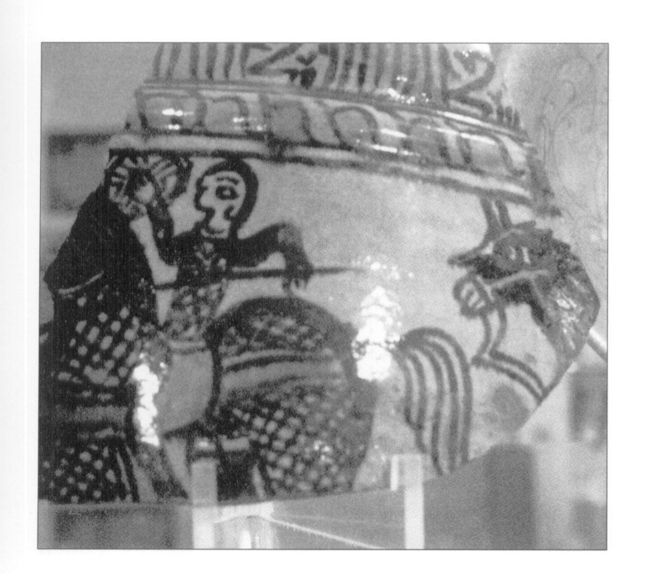
their best troops were drawn from the Arab tribes of Syria. Nevertheless *mawali*, or the 'clients' of various Arab tribes who had voluntarily converted to Islam, were rising in importance as soldiers and in the command structure. Such *mawalis* formed separate regiments under their own officers, and in North Africa they came from many backgrounds including Coptic Egyptians, Greeks, Persians, Berbers and others.

The indigenous Berber warriors of North Africa were poorly armed, most relying on a small leather shield, a short sword and two javelins. Their tactics generally relied upon one furious charge, though Berber infantry did build wooden field defences or used hobbled camels to form a defensive laager. Once Arab Islamic authority had been consolidated the first Berber tribe to convert to Islam appears to have been the powerful lowland Masmuda, pagan nomadic tribes accepting the new religion more quickly than did Berber villagers or the remaining Romanised townsfolk. This process was encouraged by governors like Hassan Ibn al-Numan, who was the first to recruit large numbers of Berber troops.

A new naval base and fleet was also established in Ifriqiya (present day Tunisia), built by the local Latin Christian *afariqa* and newly settled Egyptian Copts. Islamic naval activity gathered pace in the early 8th century, raiding Byzantine-held islands as a way of weakening Byzantine naval power. Meanwhile the Muslims made their first and most dramatic overseas conquest, seizing the entire Iberian peninsula (AD 711–721) and ranging deep into southern France. Throughout these dramatic campaigns the naval dimension remained vital, and following the Umayyad Caliphate's naval losses while trying to capture Constantinople in 717 the Islamic forces in Iberia were in grave danger of being cut off.



The closely spaced towers which enclosed the southern terrace of Madina al-Zahra, a few kilometres west of the Andalusian capital of Cordoba, stand almost at the centre of the Umayyad palace city. Above were the main ceremonial buildings and mosque, while below was a huge area of barracks, apartments, parade grounds, gardens and even a zoo, all surrounded by an even stronger wall. The whole fortified zone stood at the foot of the Jabal al-Arus or Hill of the Bride, so named because in spring it was covered with blossoming fruit trees.



The stylistic similarities between this decorated ceramic fragment from the ruined palace at Sabra in Tunisia and the wall decoration from Madina al-Zahra are obvious. It dates from the 10th or 11th century. The horseman is bare-headed, has a long spear and small round shield, while parallels between his costume and that of more realistic pictures from 10th-century Iran suggest that he wears a short lamellar cuirass and baggy riding breeches. Though the cross-hatching on his horse might be merely decorative, it seems likely to represent horse armour, perhaps of quilted or felt construction. (Benaki Museum, inv.11762, Athens, Greece; author's photograph)

Again *mawalis* played a major role in the conquest; all four of the main commanders – Tarif Ibn Malluk, Tariq Ibn Ziyad, Mughith 'the Freedman' and Musa Ibn Nusayr – were probably *mawalis*, as were many of their elite cavalry units. One tradition mentions seven hundred Africans in Musa Ibn Nusayr's army, but the bulk of the invading armies were of barely converted Berber tribesmen plus the existing Umayyad garrisons from North Africa.

Pagan Berbers and Jewish warriors also took part, though whether the latter included Jews from the Iberian peninsula is unknown. Ex-Visigothic troops seemingly supported the conquerors in raids north of the Pyrenees against their ancient rivals the Franks. The Arab manpower which provided the driving force of early Islamic armies was, however, stretched beyond what could be maintained, and in AD 750 the Umayyad Caliphate in Syria was overthrown by a new dynasty, the 'Abbasids, whose interests lay in the east rather than the west.

Meanwhile much had changed within the new Islamic provinces of North Africa and Andalus. Berber revolts resulted in large armies being sent there, and elite Syrian Arab forces had also been sent to Andalus in AD 742. This must surely have been why a survivor of the Umayyad dynasty chose to flee to Andalus fifteen years later.

THE GOLDEN AGE OF CORDOBA

From the mid-8th to early 11th centuries a brilliant civilisation developed in the Iberian peninsula, ruled by descendants of the Umayyad Caliphs of Syria. Though somewhat provincial compared to the Islamic Middle East, Umayyad Andalus was far in advance of the rest of Europe. In military terms Cordoba became a regional superpower, though one which made no effort to conquer its neighbours. The only real cities lay in the south or in the Ebro valley. These were also the heartlands of Islamic Andalus, intensively cultivated by means of sophisticated but vulnerable irrigation systems, while the vast central plains were largely reserved for stock-raising. In this 'cowboy country' a way of life developed which would later be successfully transferred to the Americas by the Spaniards. An economic and military distinction between the urban-agricultural heartlands and the rougher *thughur* frontier zones meant that the people of the *thughur* developed their own distinctive character, shared to some extent by the inhabitants of the Ebro valley which lay very close to the warlike Christian principalities of the Pyrenees.

The real heartland of Andalus was, of course, the broad Guadalquivir valley with its great cities. By encouraging irrigation and land reclamation the Umayyads of Cordoba also enjoyed increased revenues and military manpower. Here cities like Cordoba and Seville had no parallels elsewhere in Western Europe; but being so densely populated, they were dependent on irrigated gardens beyond their





Details from another and simpler carved ivory box, made in Cuenca in AD 1026 probably for a member of the Arab-Andalusian aristocracy. The workmanship is simple but realistic, showing a cavalryman riding with short stirrup leathers. His clothing probably represents an ordinary tunic or quilted soft armour. The archer, however, is certainly wearing a short-sleeved mail hauberk. His bow is of the traditional large Arab infantry type, and he has arrows thrust into his belt. (Museo Arqueologico, Burgos, Spain)

walls. Once an enemy grew strong enough to ravage such food-producing suburbs the city could be starved into submission.

The Andalusians themselves were of varied origins. The numerically tiny Arab elite had intermarried with other peoples, including local Iberians, ever since they arrived. Berbers were still the most numerous of the conquerors, while the Jewish community was also large and influential. The descendants of African and European slaves were fully integrated; but the most numerous Muslim community stemmed from local Iberians. By the 11th century these had fused together to form a new Andalusian people. Arabic was the language of state affairs, religion, culture and commerce, but at home many, even in the ruling and military elites, spoke *aljami* or *latinia* – a language evolved from Latin but which was not yet Spanish. Meanwhile the substantial Mozarab or 'Arabised' indigenous Christian community also used Arabic outside the home and *latinia* within it.

From the 9th century onwards Andalus shared the new scientific advances seen across the whole Islamic world. The result was an experimental attitude towards technology, notably in siege warfare, metallurgy, ship-building – and in at least one attempt to fly! This was made by 'Abbas Ibn Firnas of Ronda in the late 9th century. He managed to glide some distance from a tower but made a heavy landing because, it was said, he had not studied birds closely enough ...

The armies of Andalus

Not surprisingly, Andalusian armies were remarkably advanced. Elite regular units were descended from Syrian garrisons resident in Andalus during the mid-8th century. However, the bulk of the army consisted of Berbers and men descended from Andalusian converts such as the *daribat al-bu'ut* or Cordoba militia, which could provide thousands of cavalrymen for major 9th-century expeditions. Slave-recruited soldiers or *mamluks* usually formed the ruler's *hasham* or personal guard, though the *hasham* of Hakam I (796–822) also included Christian mercenaries from the north. Their descendants still formed the core of the Cordoban *jund* regional army a century later.

Towards the end of the Umayyad period, when *hajibs* or 'prime ministers' ruled Andalus as military dictators, greater numbers of *mamluks* and mercenaries were recruited. Some of the latter came from the north but the great bulk were Berbers from North Africa. Meanwhile the old *jund* was dispersed amongst other non-elite troops and lost its traditional privileges.

Andalusian armies attracted large numbers of religiously motivated volunteers, as did most other Islamic armies of the period (see MAA 320, *Armies of the Caliphates 862-1098*). Perhaps they were the soldiers to whom the anonymous author of the mid-10th-century 'Cordoba Calendar'

Painted ceramic fragments from the Palace of Sabra, mid-11th century.
(A) & (B) are plaques used as wall decorations, showing an infantry archer with a recurved composite bow; and a combat between a bearded Arab or Berber infantryman and a 'moon-faced' Turkish cavalryman. The former has a long straight sword, a small round buckler, and is wearing a long-sleeved coat which is probably the quilted soft armour described in several sources.
(C) Fragmentary ceramic plate showing an Arab or Berber cavalryman with a large turban. (Bardo Museum, Tunis, Tunisia)

A

referred when he stated that 28 February was the date when officials started touring the country looking for volunteers for that summer's campaigns.

Similar sources of recruitment would have been available to the governors of *thughur* frontier provinces, though here there were also volunteers and mercenaries from the Christian side of the frontier. Less is known about the defeated Viking raiders who were permitted to settle around the Guadalquivir estuary. They were better known for raising cattle and making cheese than as a source of military recruits.

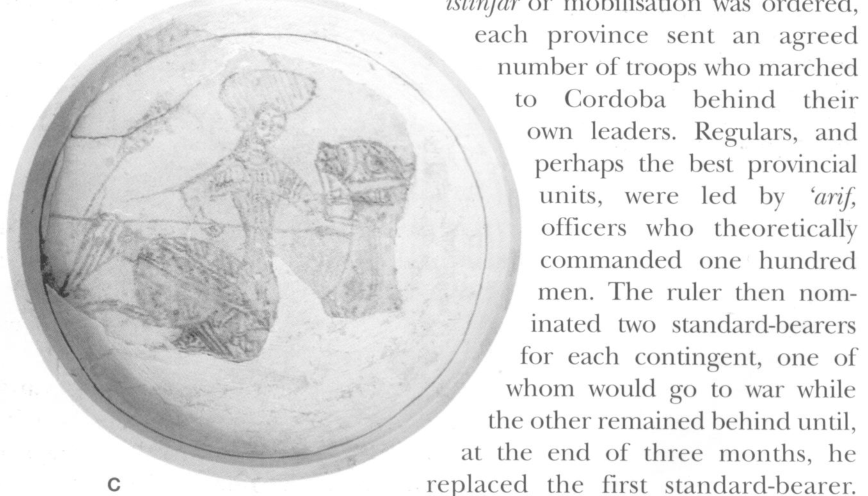
The organisation of Umayyad Cordoban armies remains a matter of debate. Andalusian cavalry were divided into squadrons in the 8th century, but nothing is known about the infantry. At the beginning of the 9th century the Umayyad ruler Hakam I imposed a more regular structure which remained largely unchanged until the first Amirid *hajib,* al-Mansur, in the late 10th century. In essence there were three elements: the professionals quartered in and around Cordoba, the provincial contingents and the volunteers, plus those recruited for specific operations, all to some extent organised by the military *diwan* or ministry.

Payment reflected status, which in turn reflected origins – either descended from the Syrian *junds* or from *baladi* 'local' forces. Contingent commanders were responsible for informing the overall commander who had done well and deserved extra payment. Rewards and 'robes of honour' were given to the most deserving, but most troops relied on booty. An occasional third category of soldiers were the *nuzara* or 'reserves' drawn from both Syrians and *baladis,* but who served under the same conditions as the *baladis.* A separate officer, the *sahib al-'ard,* was in charge of muster and review of Berber troops in the late 10th century, and efforts were made to keep newly recruited Berber mercenaries separate from older formations.

Clearly the Umayyads of Andalus made great use of military display. When the *istinfar* or mobilisation was ordered, each province sent an agreed number of troops who marched to Cordoba behind their own leaders. Regulars, and perhaps the best provincial units, were led by *'arif,* officers who theoretically commanded one hundred men. The ruler then nominated two standard-bearers for each contingent, one of whom would go to war while the other remained behind until, at the end of three months, he replaced the first standard-bearer.



B

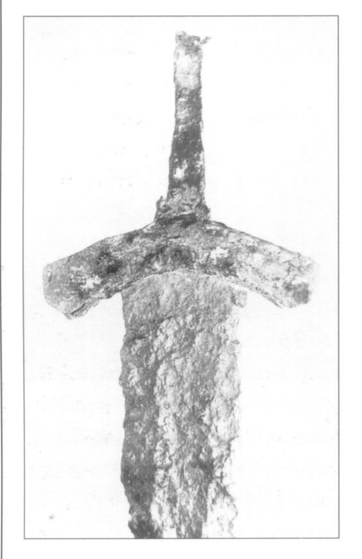


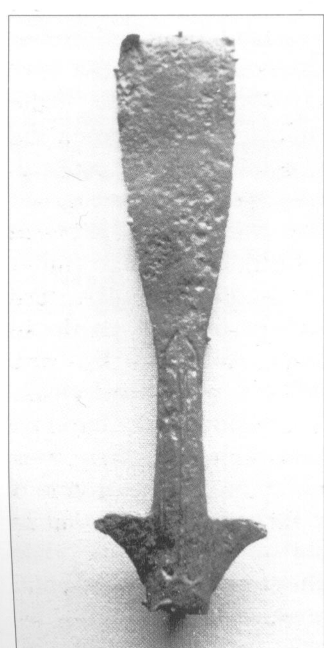
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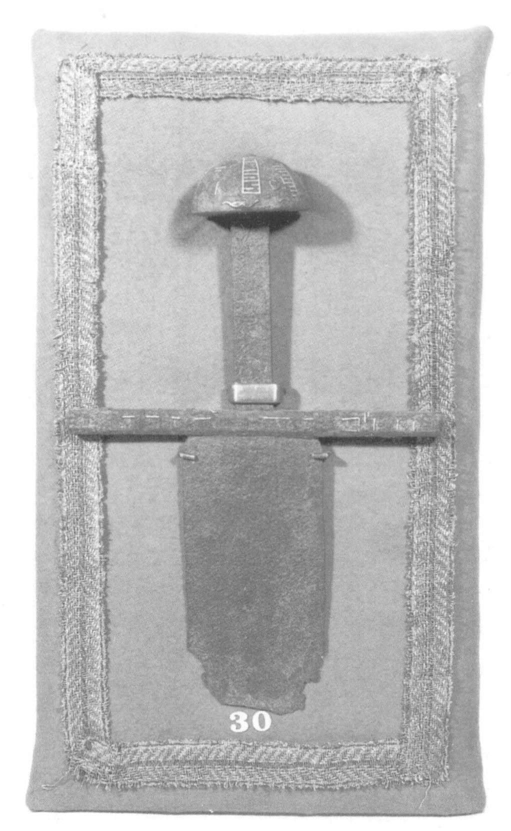
Once assembled, the men's equipment was checked, probably by the *sahib al-'ard's* staff, who were also responsible for training and payment. Discipline may have been maintained by the *shurta* which, like his *haras* bodyguard, remained under the ruler's personal supervision. Ceremonies began with the *buruz*, a grand parade from Cordoba or from the nearby palace-city of Madina al-Zahra. For twenty to forty days the ruler lived in the 'field of the royal tent' while he and his officers reviewed the army. Plans were finalised, and on the Friday before the army set out the main banners were brought from the Great Mosque in Cordoba to be fastened to their staffs in the presence of the army. The *qa'id* governor of the province from which the campaign was to be launched was alerted, while other governors were told to meet the main force with their provincial contingents.

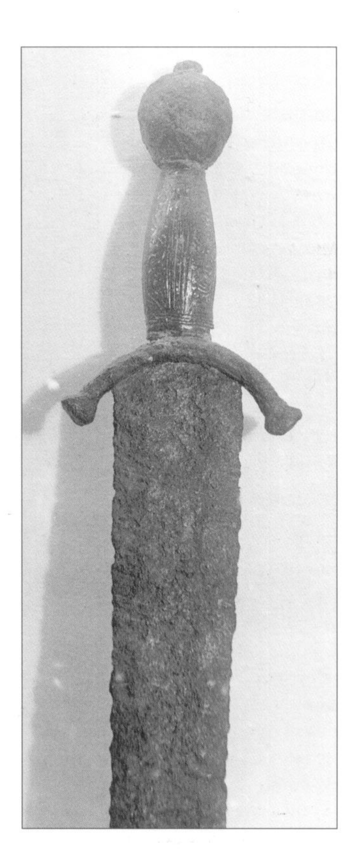
The system of *ribat* frontier and coastal fortifications manned by religious volunteers started at around the same time in Andalus, North Africa and Sicily. They had features in common with a fortified monastery, and would have a major influence upon the development of the Christian Military Orders in later years.

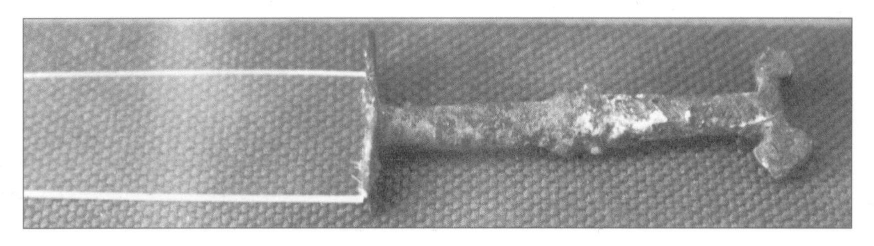
A	B	E
C	D	











OPPOSITE **Andalusian weapons finds:**
(A) Much corroded quillons and upper part of the blade of a sword from the province of Seville. The style is very similar to that of 10th-century Western European weapons, and it has sometimes been described as a 'Viking' type; but the written sources make it quite clear that Andalusian troops also used imported 'Frankish' swords, while local armourers probably made swords in a similar style. (Museo Arqueologico, Seville, Spain)
(B) A more complete sword-hilt from an unknown location, in what has been described as a 'shared Mediterranean and Middle Eastern style'. It probably dates from the 11th century. (Museo Eserjito, inv.35.371, Madrid, Spain)
(C) Spearhead from near Granada, 11th or 12th century. This Andalusian weapon again has much in common with spearheads used in other parts of Western Europe. (Museo Arqueologico, Granada, Spain)
(D) 14th-century dagger hilt from the region of Granada. This bronze object has similarities with the 14th-century Christian European basilard dagger, but is also very distinctive and probably represents a design characteristic of early Nasrid Granada. (Museo Arqueologico, Granada, Spain)
(E) Sword from Prado del Rey near Cadiz. Its dating is uncertain but seems most likely to be 14th or 15th century. The style of hilt with an all-iron grip is probably a late medieval Western Islamic version of a style seen in the Arab world since pre-Islamic times. (Museo Arqueologico, Seville, Spain)

Information about military training in the Islamic West only survives from the 12th century onwards, but troops were clearly skilled. Archery largely remained an infantry affair, with horse archery playing a minor role. Only recently, with the identification of a 12th-century Moroccan, Ibn Maymun, as the author of a treatise on archery, has the existence of a Western Islamic 'school' of archery been identified. This may, however, have been more typical of Andalus and Morocco than the rest of North Africa. Polo was being played in Andalus from an early date, while chess, of course, probably reached Western Europe via Andalus.

Most campaigns were fought in summer, and on the march 10th-century Andalusian armies were divided into the usual five sections of centre, advance, rear and flanks, their flanks and rear being covered by light cavalry. Encampments were reportedly surrounded by smaller outposts and, at least in the late 10th century, considerable effort went into constructing well-defended camps. Until Toledo fell to the Christians in 1085 the main battlegrounds were the mountainous Sierras where infantry dominated. The main roles for cavalry seem to have been long-distance raiding, or providing support for the solid formations adopted by the infantry in open battle. Comparable tactics were also employed by the most sophisticated forces of early medieval Islamic North Africa.

Dress and equipment

While Persian and Turkish fashions were gradually adopted by the ruling and military elites of the Arab Middle East, Persian styles enjoyed only a temporary popularity in Andalus and hardly any in North Africa, while Turkish fashions made virtually no impact. In North Africa Arab-Egyptian dress was gradually adopted by all except the poorest Berbers, but was itself then partially discarded with the rise to power of Berber dynasties in the 11th century. As Umayyad power in Andalus declined so Persian fashions were again replaced, partly by North African Berber modes and partly by a distinctive local Andalusian style which owed much to indigenous Iberian costume.

Andalus was one of the most iron-rich parts of the Islamic world, and although Roman mining centres were largely abandoned during the Visigothic period they, like those of North Africa, saw a tremendous revival under Islamic rule. Compared to most Islamic countries, Andalus was also well endowed with the timber resources needed to work iron.

In the late 9th century, and probably earlier, Andalus and North Africa were importing sword blades from Christian Europe; armour from North Africa or Egypt; armour and Turkish-style bows from eastern Iran; and swords, spears and other items from as far away as India. In return Andalus exported gilded and other armour to North Africa, along with weapons and horse-harness. The 'Cordoba Calendar' also stated that June was when government officials toured the country collecting deer and wild goat horn to make composite bows. Other evidence is in the form of hostile propaganda, but even that written by the exiled Andalusian poet Ibn Hani in the 10th century may contain elements of truth:

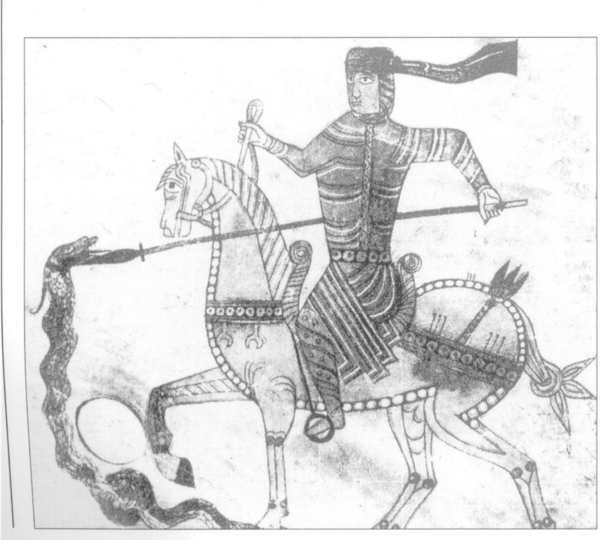
'They do not understand how to charge their well-bred horses and they are unable to endure the mêlée and the crossing of spears. They never take their fearsome pointed swords from their scabbards, and their

dynasty waddles like a flirty woman with a flexible waist. Their mail coats never get smeared with blood in war and in battle they are like servants with the shits. But you [the rival Fatimids of North Africa] march covered with long coats of mail, sparkling and covered with embroidered mantles. The difference between you and them is like the difference between the hard lances of bamboo and the feeble reeds of breakable flutes.'

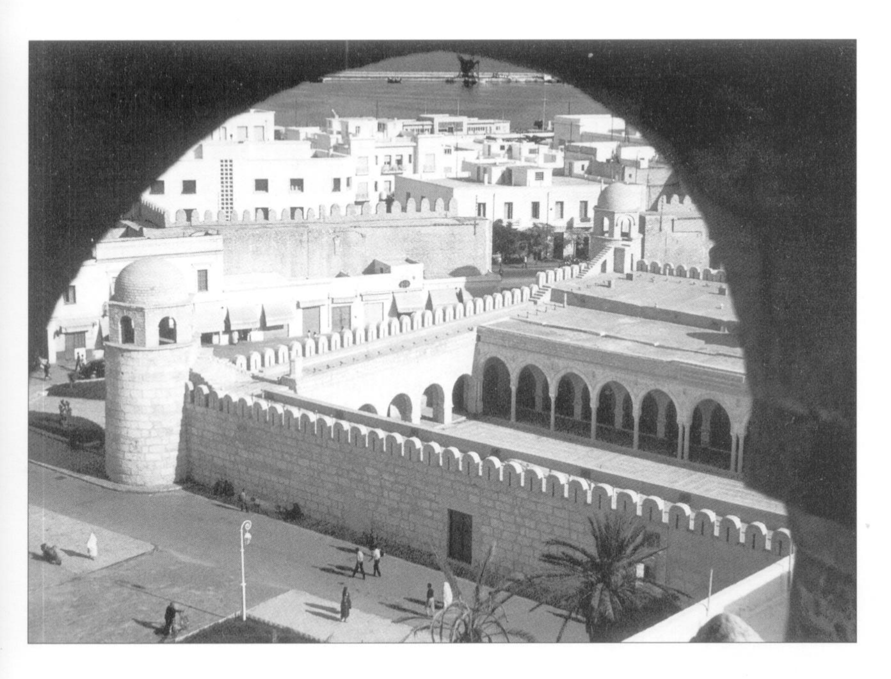
Around AD 975 'Isa Razi penned a more sympathetic description of the Cordoban army. Its men used three types of sword: *ifranji* (Frankish or European), *'idwi* (Berber), and Arab. Some were silvered, gilded, enamelled or jewelled while some had similarly decorated scabbards. Spears were of the *rumh* or long *qanat* types which could be used as pikes. Javelins came in a variety of forms but the most common was a local variation on the heavy *harbah* which had a 'blade like a Frankish sword' and sounds more like an early form of staff weapon. Bows were of the Arab and Persian composite types, most described as large and shooting Syrian-style arrows. Though often regarded as inferior to the shorter, thicker and smoothly recurved Turkish composite bow, these earlier Arab bows may have been more suited to archery on foot. Their angled ears provided substantial leverage and were consequently less tiring in situations where infantry archers had to maintain a much higher rate of shooting than did horse archers. Other weapons mentioned by 'Isa Razi were the *tabarzin* cavalry axe and assorted forms of mace.

Armour included the common *dir'* mail hauberk, the less common *jawshan* lamellar cuirass, and the *baydah* or 'egg-like' helmet – sometimes gilded, and usually made from one piece of iron. Other helmets covered more of the neck, while the earliest Andalusian references to the seemingly taller *tarikah* helmet date from the early 11th century. The *mighfar* mail coif protected the face, neck and shoulders, while the poorest warriors covered themselves with soft armour made of leather or hide, sometimes padded with wool. Shields consisted of the wooden *turs*, which might be painted in bright colours, and the leather *daraqa*.

Weaponry for the elite regiments was kept in government arsenals, the biggest being the *khizanat al-silah* in Cordoba and Madina al-Zahra, which could manufacture 3,000 tents, 13,000 shields and 12,000 bows per year, not to mention 20,000 arrows per month. The raising of horse herds was another major consideration. For example, the Mozarab community around Elvira provided mounts for Abd al-Rahman I's *mawali* guard. Two generations later stables for 1,000 horses were built near Cordoba for Hakam I's guard, and by the end of the 10th century the dictator Mansur had no fewer than 12,000 regular cavalry. The support administration was headed by the *sahib al-khayl*, as opposed to the *qa'id al-khayl* who actually commanded the cavalry. Huge stud farms were established near Seville, others being set up on islands near the mouth of the Guadalquivir. Nevertheless in the late 10th century 3,000 mares and colts with 100 stallions still had to be shipped from the Atlantic coast of Morocco. Ibn Hawqal



Biblical figure slaying a serpent, in a copy of *Beatus' Commentaries on the Apocalypse*, made in Tavera in AD 975. Mozarab manuscripts were made by the Christian Andalusian community living under Islamic rule, in a local style combining early Christian and Arab-Islamic artistic traditions. The horseman shown here seems to have a rudimentary turban-cloth around his *mighfar* or mail coif. The latter goes inside a long-sleeved tunic which is buttoned down the front in Persian-Islamic style. His mail hauberk is worn under the tunic, as described in the written sources. (Cathedral Museum, Gerona, Spain)



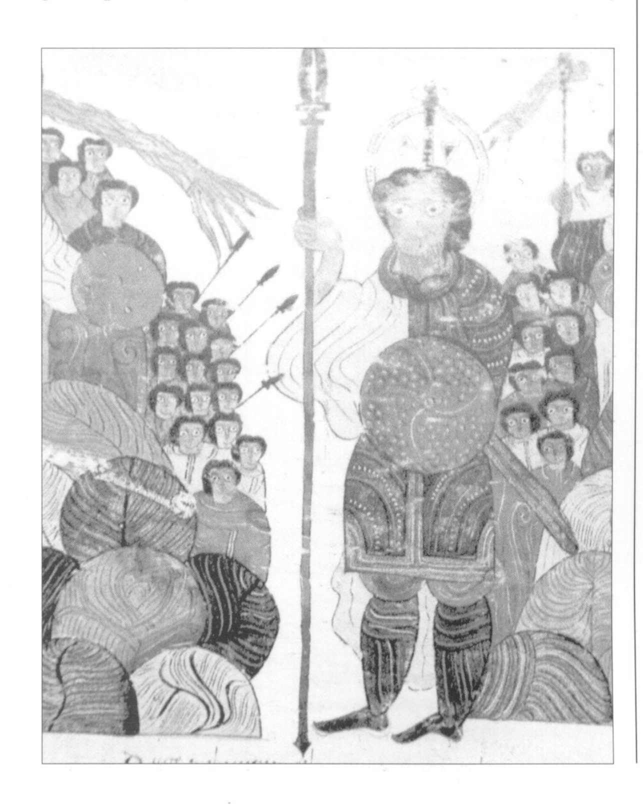
The oldest part of the Great Mosque of Susa in Tunisia, shown here, was built in AD 850/851 during the Aghlabid period. It stands on what was originally an island and its strength, as well as its fortified appearance, suggest that it may also have served as a refuge in case of an enemy naval raid. (Author's photograph)

was another unsympathetic commentator, who wrote that the horsemen of late 10th-century Cordoba:

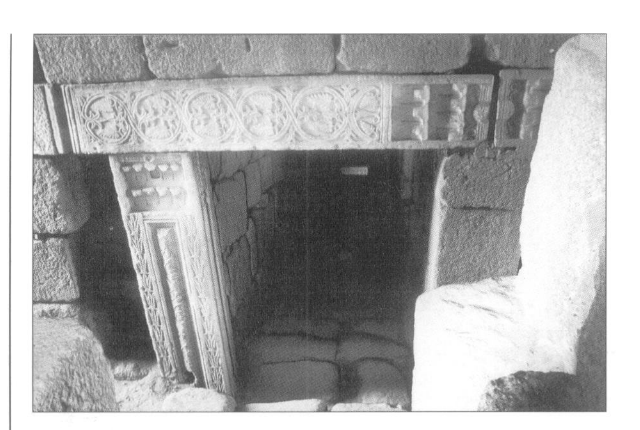
'... present no spectacle to see, because they ignore all the rules and arts of equitation, despite their bravery and their being accustomed to combat. Neither I nor anyone else has seen a man riding a fine-bred horse or even partially of fine blood which is supplied with stirrups. They are incapable, any of them, to my knowledge of using stirrups, because they fear that if they fall their foot will remain caught up. They ride their horses naked' [i.e. without the type of wood-framed saddles used in the Middle East].

The commentator 'Isa Razi, however, maintained that two types of saddle were used, the 'European' and the Berber. Horse armour was known, mostly of felt or quilted construction though some mail horse armour was seen even in the 10th century. The term *tishtaniyya* came from the Latin *tastina* which, in later Christian northern Spain and France, meant a protection for the horse's head.

Similarities between these Umayyad Andalusian armies and those of the Christian north did not, however, prove a northern influence, since several features associated with the armies of 11th- and 12th-century Western Europe were first seen in Islamic Iberia. One of the most unexpected examples is in heraldry. When Hakam II left Madina al-Zahra in AD 971 he was 'proceeded by different classes of banners and ensigns, amongst which, for the special honour with which his lord distinguishes it, was the lofty Satrang'. This word came from the Persian *shatrang* meaning chess or chessboard. On



Goliath, in a Mozarab illustrated Bible made in AD 960. This remarkable picture shows the Philistine giant in a stylised but nevertheless understandable form. His helmet is of tall framed type, his spear has a winged or flanged blade, his shield is round and his sword is straight. One shoulder and the lower part of his clothing might indicate a mail hauberk with slits at the sides of the hem, but his spear arm appears to be covered in a cloak which also falls behind his legs. This might in fact be an early representation of the typical North African *haik*. (Biblioteca, Ms.2, f.118v, Colegiata S. Isidoro, Leon, Spain)



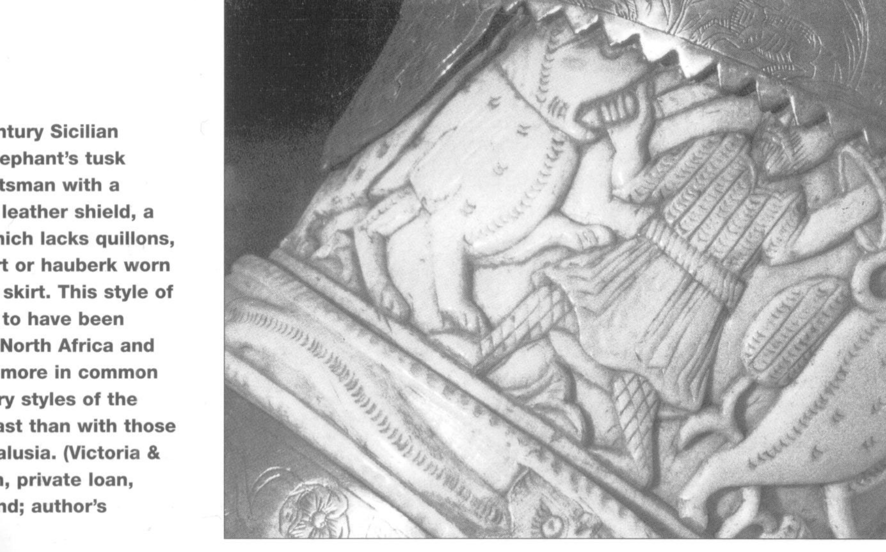
The entrance to a passage leading from the centre of the *qasr* of Merida down to an underground cistern fed by water from the river Guardiana. The carvings around the entrance are Visigothic, re-used during the Islamic period. The fortress itself was built during the reign of Abd al-Rahman in AD 835 and is one of the earliest examples of Andalusian Islamic military architecture. (Author's photograph)

another occasion Galib ibn Abd al-Rahman sent a military detachment to Cordoba 'in perfect formation with parade ornaments including the Satrang'. The oldest pattern in European heraldry is, in fact, *checky*, a word which again springs from the Persian *shatrang*.

Military architecture

A distinctive style of military architecture only started to appear in Andalus during the 9th century, characterised by a circuit wall with numerous closely spaced towers. Like their Visigothic predecessors, the Umayyads of Cordoba also made use of good quality stonework. Whereas their fortifications in flat terrain tended to have very regular plans, in the mountains Andalusian military architects adapted their designs to the lie of the land and used more widely spaced towers. The most magnificent Umayyad fortified enclosure in Andalus is the palace-city of Madina al-Zahra. Three of its four sides have a doubled wall, each five metres thick with a five-metre passage down the middle, the towers also being linked to the central raised precinct by an arcade, though on the north side there was only a single wall.

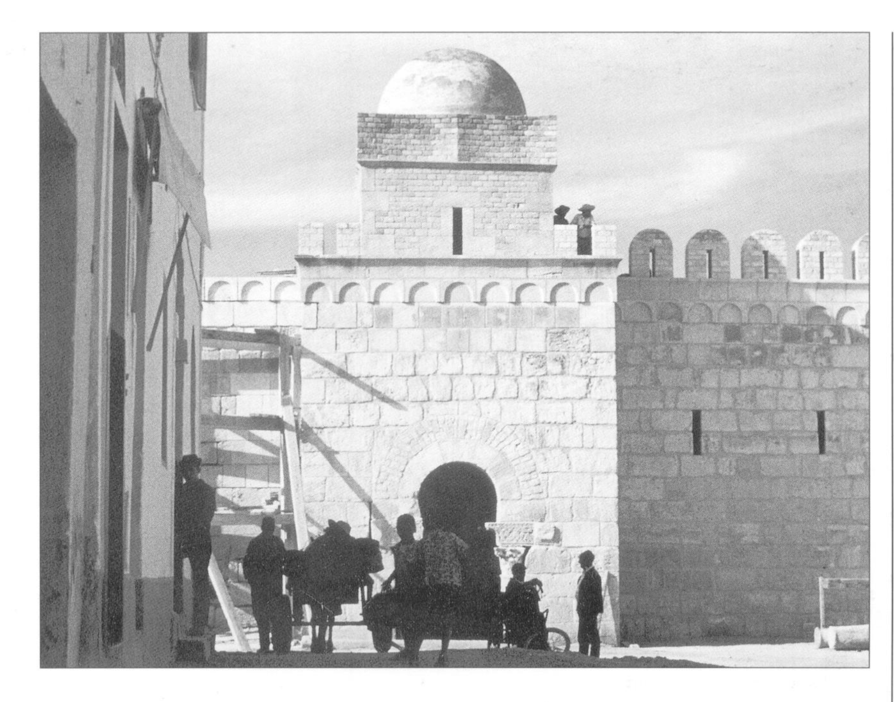
Frontier fortifications placed great emphasis on secure water supplies in large storage cisterns. The 9th century may also have seen the first long walls extended from a primary fortification to guarantee access to an important source of water, usually with a strong tower at the end. The main *hisn* fortresses had permanent garrisons. Smaller *qubba, qal'a* or *burj* fortifications were similarly rectangular in plan and might also serve as *ribats* garrisoned by volunteers. Frontier defences included small *rutba* or *marsad* outposts which, like other isolated positions, could serve as way-stations for the *barid* or government postal system. During the



A late 11th-century Sicilian carved ivory elephant's tusk showing a huntsman with a deeply convex leather shield, a broadsword which lacks quillons, and a mail shirt or hauberk worn inside a kilt or skirt. This style of armour seems to have been widespread in North Africa and Sicily, but had more in common with the military styles of the Arab Middle East than with those of Islamic Andalusia. (Victoria & Albert Museum, private loan, London, England; author's photograph)

10th century small castles called *sajra* began to appear, usually on hilltops and often in passes where they might cut off raiders. Finally there was a type of small round observation tower known as a *tal'iyya.*

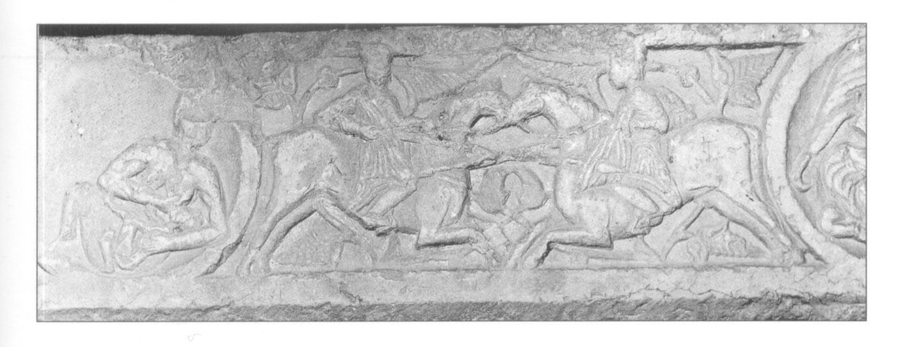
The castle at Faro on the Atlantic coast had gates entirely covered in iron, plus an arsenal and a substantial garrison to face a new threat from the sea itself – Viking raiders, who made their way along the entire Iberian coast and attacked Morocco. Other fortifications were less aesthetic, many being built of *tabiya*, a form of practical but ugly concrete. It consisted of earth, branches, straw, bones, lime and water laid in rows of timber formers. Less is known about the siege technology of this period, except that it included the same techniques as in the Middle East.



The gate of the fortified *ribat* at Susa in Tunisia was completed in AD 821. It is the best preserved of a series extending along the coast from Tripoli in what is now Libya, through Sfax, Monastir, Susa and Bizerta. A minaret in one corner also acted as a watchtower and a lighthouse for shipping. Such *ribats* were garrisoned by religiously motivated volunteers and offered refuge to the local inhabitants in case of enemy attack. (Author's photograph)

Ships

Naval power was recognised well before the Muslim Arabs conquered Iberia, and it was probably naval superiority which enabled a tiny Islamic garrison to hold Narbonne in southern France for so long. Naval matters continued to be taken seriously throughout the 9th and 10th centuries, the 'Cordoba Calendar' stating that ships started to ply the seas after 13 April, by which time the winter storms were considered to have abated. At first the Umayyads of Cordoba focused their attention on the Mediterranean, where they soon faced a powerful rival in the form of the Fatimid Caliphate. But whether the unusually large 10th-century Andalusian ships reflected competition with the Fatimids, more abundant timber resources, or factors linked to the Atlantic coast of Andalus remains unknown. Ibn al-Athir described an Andalusian cargo ship captured by the Fatimids as being approximately 83m (272ft) long and 33m (108ft) broad.



The so-called 'Pila' is a late 11th- or early 12th-century carved basin which stood in the gardens of the palace of the local Banu Mujahid ruler of Denia. The costume of these two combatants seems more North African than Andalusian, while another scene shows three men with long beards and peculiar headgear, pulling each other's beards in a symbolic representation of a quarrel. Perhaps the carving actually dates from after the Murabit conquest, the two horsemen being North African or Saharan warriors jousting while the men arguing represent the fractious *taifa* rulers whom the Murabitun overthrew? (Museo Arqueologico, Jativa, Spain)

THE BERBER STATES & SICILY

David and Goliath (top), and an Israelite army defeating the Philistines, in a Spanish illustrated Bible made in AD 1162. At a time when the Philistines were almost invariably shown as Muslims in Western European art, this illustrated Bible has both sides equipped in the same manner. Both carry round shields, wear long-sleeved mail hauberks, usually with mail coifs, and are armed with lances and straight swords. (Biblia Segunde de San Isidoro de Leon, Biblioteca, Colegiata S. Isidoro, Leon, Spain)

The Islamic southern shore of the Mediterranean was, like the rest of the Islamic world, entering a golden age of prosperity and power. Islamic civilisation also had a profound influence upon the Sahara and West Africa. Nevertheless the Abbasid Caliphate in Iraq was not strong enough to control the far west. The Idrisid dynasty came to power in Morocco in the late 8th century, and two decades later the Abbasids recognised the loyal but nevertheless independent Aghlabids of Ifriqiya (Tunisia). The Aghlabids then launched successful naval campaigns across the Mediterranean, culminating in their conquest of Byzantine Sicily. Bari and Taranto were colonised by Muslims, and Apulia almost became an autonomous amirate by 866, but was then largely cut off by political upheavals back in North Africa. Finally Muslim forces were invited into Fraxinetum in southern France in the late 10th century, as allies in local Christian quarrels. Meanwhile the Fatimid Caliphate arose in North Africa, though its history largely concerns Egypt and the Middle East (see MAA 320, *Armies of the Caliphates 862-1098*, and MAA 171, *Saladin and the Saracens*). This period ended with an invasion of North Africa by several Arab tribal confederations including the Banu Hilal.



Meanwhile the old *jund* armies of Arabs and Berbers continued to dominate, though the importance of *mawalis* declined after they rebelled against the Aghlabids in AD 877 Other peoples were also drawn in, including the Khurasanis who were actually Persianised Arabs long resident in eastern Iran. A second wave of Arabs appeared with the arrival of the Banu Hilal and Banu Sulaym in the 11th century. They had previously formed auxiliary garrisons in Egypt and now established tribal principalities in western Libya, Tunisia and eastern Algeria.

The main source of military manpower in North Africa remained the Berbers, and local dynasties like the Aghlabids never had a problem finding enough troops. They continued to provide the military muscle for subsequent smaller dynasties and the majority of those volunteers who built, repaired and manned the coastal *ribats*. Fewer in number were soldiers of black African origin. Following a *mawali* rebellion in AD 877 the Aghlabids began recruiting black *abid* soldiers of slave origin as elite guard units. Other slave-recruited troops included *saqaliba*, whose name means Slavs but who probably included individuals of other European origin, though their numbers are unknown. *Rumis* or Greeks were also mentioned, and many Greek Byzantine soldiers in southern Italy converted to Islam in the 10th century. The maritime city of Amalfi was a frequent ally of Islamic states; Bishop Athanasius of Naples recruited Islamic troops,

and Muslims settled in the old Byzantine province of Lucania (see MAA 150, *The Age of Charlemagne*). The military complexity of this period is nowhere better illustrated than in Sicily, where the Islamic conquerors included Africans, Berbers mainly from the Huwwarah tribe, Arabs including exiles from Andalus, and Khurasanis who were Persianised Arabs. Many Sicilians also converted to Islam and presumably found some small military role.

Almost nothing is known of Idrisid armies in Morocco, but in Aghlabid Tunisia regular troops, including Arab *jund* militia garrisons, were paid twice a year, the money being distributed in the form of *ata* stipends with cavalry receiving twice as much as infantry. The *iqta* system, roughly equivalent to the Byzantine *pronoia* or Western European fief, was not much used in North Africa but was found in Islamic Sicily, perhaps as a result of Fatimid-Egyptian influence on the Kalbid dynasty which ruled from AD 948 to 1053.



An early 11th-century ceramic bowl used as a *bacini* or architectural decoration in the church of S. Piero a Grado in Pisa. It was made in the western Islamic world, perhaps in Majorca, and is the earliest known illustration of a three-masted merchant ship in the medieval Mediterranean. Such ships would not be used in Christian fleets such as those of Italy for another two centuries. (Museo Nazionale di S. Matteo, Pisa, Italy)

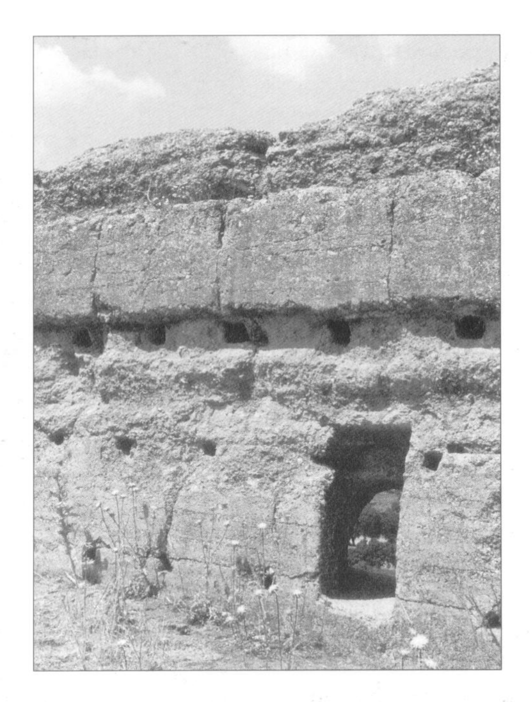
The little that is known about training and motivation in North African armies during this period indicates that the Berber elite of the Sanhaja tribe, and probably of others, indulged in a form of training comparable to the *furusiyya* exercise of the Middle East. North African tactics stemmed from early Umayyad practices influenced by more recent developments in the Middle East. For example, 10th-century Berber forces, though they did not abandon the massed use of infantry slingers against enemy horses, had adopted spear-armed Arab cavalry styles, while on foot many of them used Arab bows. Infantry archery clearly played a major role during the conquest of Sicily where, in one battle, the invaders adopted a defensive position in disciplined ranks under their officers until, as the enemy charged, they all shouted the 36th *sura* the Koran – the *Ya Sin*, which is traditionally recited at times of adversity. During another battle between the Banu Hilal and the Zirids in Tunisia, the Banu Hilal struck when their enemies were approaching the *nuzul*, that vulnerable moment when an army on the march attempted to make camp for the night, and as a result most of the Zirid army fled.

Coastal *ribats* watched for Byzantine ships and delayed the raiders until a local army arrived. This system was so effective that Aghlabid fleets were able to concentrate on offensive operations. In AD 827 the invasion of Sicily began with around one hundred ships transporting 700 cavalry and 10,000 infantry in a three-day operation. Even so the invaders felt themselves to be dangerously short of horses, some of their leaders riding mules into battle. Nineteen years later another full-scale Aghlabid army of 11,000 men and 500 horses was transported in 73 ships to land on the Italian mainland near Ostia in the summer of AD 846.

Dress, equipment and architecture

There was more Middle Eastern influence on North African costume than on Andalusian, and Berber soldiers adopted Arab turbans in the late 10th and 11th centuries. Nevertheless Berber forms of dress pre-

dominated. Male costume grew longer, as a result of Islamic ethics, and the ancient hooded cloak evolved into the *burnus* which can still be seen today. The same was true of the *haik* body-wrapping blanket which was worn by both sexes.



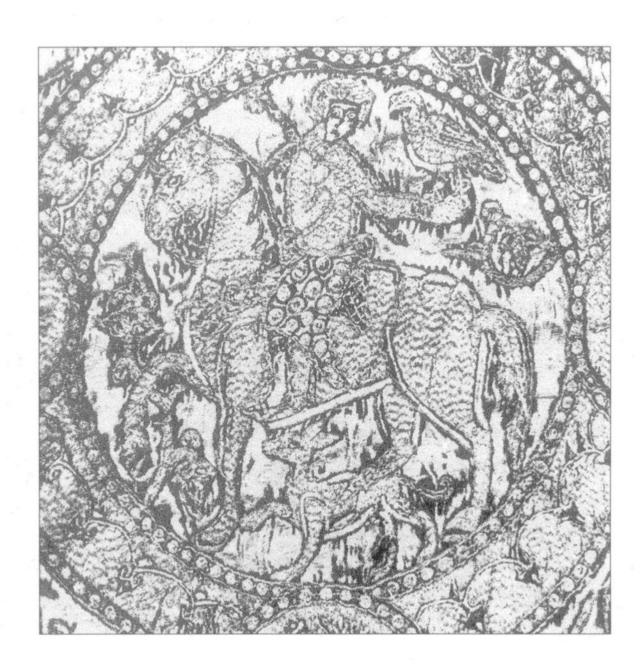
Part of the *tabiya* or concrete fortifications of the 10th-century castle of al-Baqar north-west of Cordoba. *Tabiya* was cheap and quick to erect, being laid in wooden shuttering forms which left the horizontal casting lines which can still be seen today. This view of the inside of the wall and a small postern door shows a series of rectangular holes which may have been for an internal wooden walkway. (Author's photograph)

These centuries also witnessed a huge expansion in North African metallurgy, far beyond what had been seen in the Roman period; but although arms and horse-harness were made locally there was little exportation of finished goods. North Africa did, however, export felts, and these may have been used for soft armour as well as horse-harness and tents. Islamic Sicily similarly developed its own iron industry. Nevertheless, Berber armies of the 10th and 11th centuries were considered poor in armour compared to their Andalusian and Middle Eastern co-religionists. Only elite troops seem to have been heavily equipped, like the Aghlabids' elite guard of *abid* African infantry, or the Arab-Islamic soldiers whose raids throughout Calabria were celebrated by the poet Ibn Hamdis.

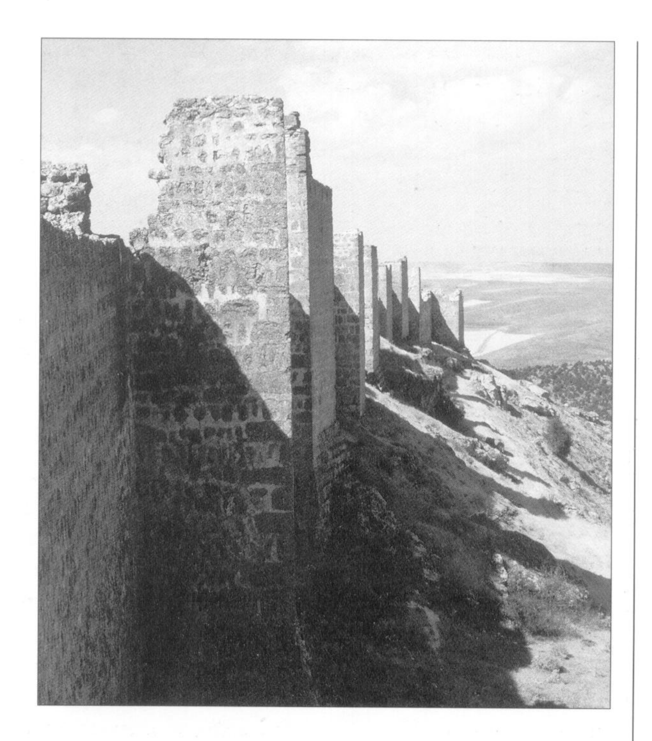
For reasons which are as yet unknown, the earliest references to the *qaws al-bunduq* or pellet bow also come from North Africa, though this was solely used in hunting. Shields were the same as those used in Andalus, though North Africa was home to the distinctive leather *lamt* which achieved almost mythic status. Traditionally made from several layers of oryx hide, tanned with milk and ostrich eggs and then glued together, the *lamt* was originally made in regions south of the Atlas mountains.

Early Islamic North African fortifications followed in the Roman-Byzantine tradition, but with the coming of the Aghlabids fortifications began to incorporate more sophisticated Middle Eastern Islamic features. Styles continued to be eclectic and increasing emphasis was given to gates. Even the small but wealthy oasis town of Sijilmasa had twelve, eight of them covered in iron. These developments went alongside highly sophisticated siege techniques and field fortifications. For example, a small army attacking Brindisi dug a ditch which was then camouflaged by twigs and dust. A sudden simulated flight then

The so-called Cope of St Thomas à Becket is made of magnificently embroidered material, woven in Almeria in AD 1116. This panel shows an Andalusian huntsman with a hawk on his left hand and carrying what appears to be a long-hafted mace or short spear in his right. He has a turban with a short *rafraf* or trailing end down the back, and rides in a deep saddle. (Cathedral Treasury, Fermo, Italy)



drew the defenders out of their fortifications and towards the ditch; they fell into the trap, the Christian commander was killed and the Muslims took the town.



Part of the massive mountaintop castle of Gormaz which, unlike al-Baqar, was a major centre of frontier defence. It is constructed not of concrete but of stone, with 24 closely spaced towers, and encloses the entire summit of a small mountain. It was built in response to the first wave of Christian attacks during the 10th century and guarded one of the main passes through the Sierra de Guadarrama which served as a front line in Andalusian resistance to Christian conquest. (Author's photograph)

Naval warfare

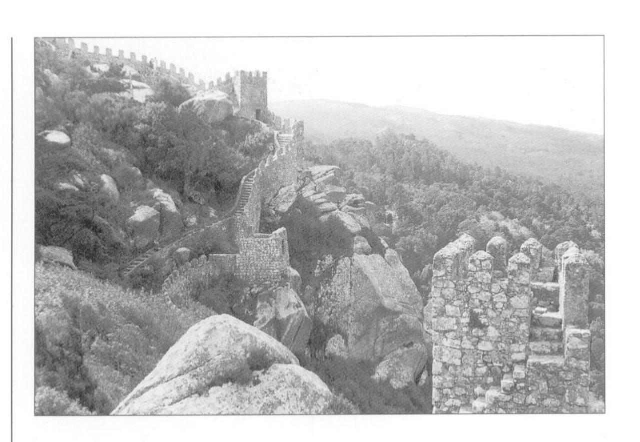
It was, however, in naval warfare that early Islamic North Africa made its most dramatic impact, despite the fact that prevailing patterns of wind and current worked against the southern Mediterranean coast. North Africa also had few good harbours, though the Fatimids constructed a naval base at Mahdia in Tunisia in AD 912, excavating accommodation for 30 ships from the coastal rocks. Even Malta was of little benefit as a naval base because it lacked timber – though it did become a centre of cotton production, perhaps to provide sails.

By the 10th century naval warfare changed from raiding enemy coasts to attacking ships at sea, the Muslims being the first to do this on a large scale, and consequently it became more important for vessels to defend themselves. This may also have encouraged the construction of the bigger ships which began to appear from the late 9th century onwards. By the 12th century some vessels from Andalus could virtually barge their way through an attempted Norman blockade of an Islamic port. The question of when the naval ram was abandoned remains a matter of debate, but its disappearance reflected the change from a 'skin-first' to a 'frame-first' method of constructing hulls. The latter resulted in a vessel which was less likely to spring leaks when struck and thus have to run ashore.

Other more dramatic naval weapons also came into use. In AD 835 an Islamic fleet included *harraqat* ships armed with fire projectors commanded by an incendiary specialist whose father came from the Islamic Indian province of Sind. In AD 964, Muslim swimmers with incendiary devices burned a large part of a Byzantine fleet in harbour.



Here Herod's soldiers are portrayed as Moorish Andalusian warriors on the early to mid-12th-century carved west front of the Church of San Domingo in Soria. These would reflect the ordinary and somewhat poorly equipped infantry militias of Andalus. However, two men do carry the tall hardened leather shields with vertical keels down the centre which would evolve into the famous *adarga* (Arabic *daraqa*) of the 14th and 15th centuries. (Author's photograph)



The Castelo dos Mouros overlooking Sintra in Portugal largely dates from the Islamic period. It is a typical example of how Andalusian architects used every precipitous crag to defensive advantage. The Muslims fought hard to hold this area, which not only defended the Atlantic port of Lisbon but was described as 'a glorious Eden' by Byron and as 'the most blessed corner of all the habitable globe' by Robert Southey. Arab Andalusian poets were similarly sensitive to natural beauty at a time when Christian European bards did little more than celebrate some warlord's or raider's most recent bloody battle. (Jane Carter photograph)

Most Islamic naval raiders used relatively small ships, probably with lateen sails and oars. The only specialist fighting vessel was the *shini* galley, the most common form of which had from 140 to 180 oarsmen, a beak rather than a ram to permit boarding, plus a forecastle which tended to be larger than that seen in Byzantine ships, and carried up to 150 fighting 'marines'.

In contrast to the slender *shini*, the Mediterranean Islamic transport vessel or *markab* was of much more varied size. Some of the written evidence sounds exaggerated, but cannot be dismissed out of hand. For example, the largest Islamic transport ship of this period was said to be of 1,000 tonnes and capable of carrying 1,500 troops, though in crowded conditions. The remarkable three-masted ships shown on 11th-century North African or Islamic Andalusian ceramics may have been earlier versions of the *qarqura*, a vessel which probably evolved into the better known *carracks* of medieval Genoa and Venice.

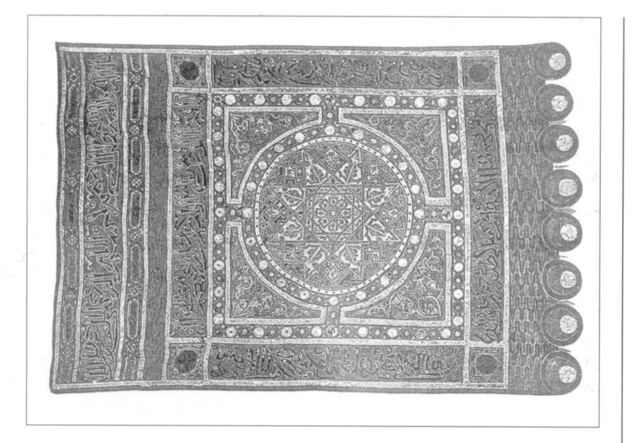
Muslim naval architects also developed the first effective beach-landing horse transport in naval history – the *tarida* – which permitted an army to disembark directly onto an enemy beach. It was a form of galley, since oars were required to back onto a beach to unload the horses through the stern. By the 10th century this *tarida* could carry 40 horses.

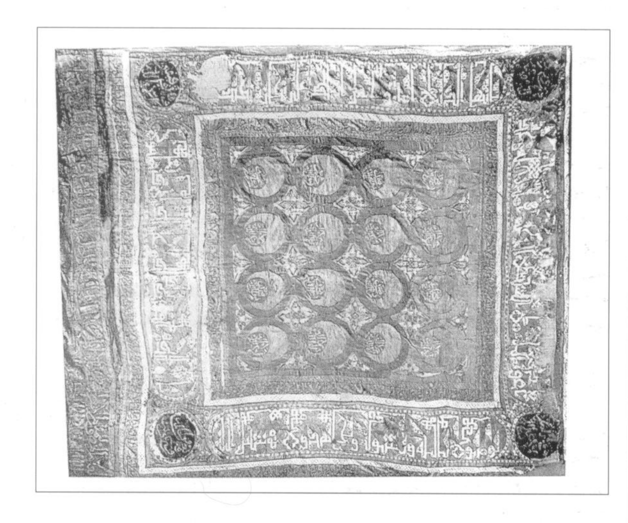
ANDALUS FRAGMENTED

When the last Umayyad Caliph of Cordoba died in AD 1036, Islamic Andalus began to fall apart. Berber units clashed with *saqaliba* troops of slave origin, and with the local Andalusians, resulting in the emergence of local rulers known as the *muluk al-tawa'if* or 'faction kings'. Muslims had probably been the majority in Andalus since the mid-10th century and seem to have assumed that they would remain militarily dominant. Not until the Christians conquered the *taifa* kingdom of Toledo in 1085 did they realise that their tiny states were incapable of defending Andalus. The withdrawal of Fatimid authority from the western parts of North Africa also led to a similar process of fragmentation there.

At the start of the *taifa* period some of these petty states had armies of only a few hundred men, while even the strongest had limited forces. Those with Berber ruling families, such as the Zirids of Granada (AD 1013–1090), recruited more widely. The Granadan army was, for example, dominated by Berbers from the Sanhaja tribe, though Berbers of the Zenata formed the bulk of a regularly paid militia. In addition there were slave-recruited European and African soldiers as well as mercenaries; but there is no mention of local Andalusian troops, who were considered hostile to the Zirids. One interesting reference mentions the influence of 'army wives' upon both military and political affairs. Elsewhere it is clear that a Mozarab Christian aristocracy played a localised military role; for instance, Count Sisnando of Tentugal, west of Coimbra, befriended both King Ferdinand I of León and al-Mu'tadid, the ruler of Seville.

The organisation of these little armies was based upon that of the previous Umayyad era, though it was simpler. For example, in Zirid Granada local *qa'id* governors were responsible for local troops, while in Almeria the cavalry were still divided into *qata'i* squadrons. For some reason the *raqqasa* or messenger corps also appears to have played a prominent military role – perhaps merely because they were available. Motivation seems to have been worldly rather than religious, as the poet Ibn 'Ammar wrote of a generous leader: 'When he gives girls he gives the full-breasted ones, when he gives thoroughbred stallions he gives the short-haired ones, when he gives swords he gives the jewelled ones'. Sieges dominated warfare, but when battles were fought tactics remained traditional. A few decades later the Andalusian writer al-Turtushi described his people's military practices, emphasising the importance of having enough baggage animals and military equipment, and never underestimating the enemy.





Western Islamic battle flags included magnificently decorated banners, two of which survive. Both incorporate characteristic Arabic religious and dedicatory inscriptions in addition to the geometric patterns which became a feature of Andalusian and North African art. (Top) Muwahhidun banner captured at the battle of Las Navas de Toloda in AD 1212. (Treasury, Monastery of Las Huelgas, Burgos, Spain) (Above) Marinid banner captured at the battle of Salado in AD 1340. (Treasury, Cathedral, Toledo, Spain)

By the 11th century there were considerable similarities between the costume, arms and armour of Islamic and Christian Iberia, while differences between Christian Iberia and neighbouring France were also becoming less marked (see MAA 200, *El Cid and the Reconquista*). On the other hand, French texts such as the early 12th-century 'Le Charroi de Nimes' highlight the 'strange' costume of the Andalusian Moors, such as soft leather boots or *harakis,* wearing *feutreüre* or soft armour over a mail hauberk, baldrics supporting a large knife rather than a sword, and small horses with 'old fashioned' stirrups.

Mail *dir'* hauberks were the most common form of armour, while a mail *mighfar* covered the head except for the eyes, so that a hero's face might be hidden 'like the sun behind a cloud'. Early in the 12th century al-Turtushi describes a soldier setting out on campaign, his waterskin attached to the saddle of his baggage camel and wearing armour which covered everything except his eyes. There is also evidence that the late Roman hand-held crossbow survived in Iberia as a hunting weapon, and in AD 1046 the army of Islamic Saragossa included a corps of 600 men armed with the *aqqara,* a form of simple crossbow which would become characteristic of the Islamic West. Written sources indicate the importance of 11th-century Andalusian flags and banners, as when the commander of a defeated army used his banners and drummers to rally his forces. Al-Turtushi similarly urged a commander to know the colours of his officers' horses, as well as recognising their flags.

Despite the small size of most *taifa* kingdoms, they were wealthy and often put considerable effort into fortification. During the 11th century towers tended to be hollow rather than solid, barbicans appeared outside town gates, bastions were given superimposed vaulted rooms,

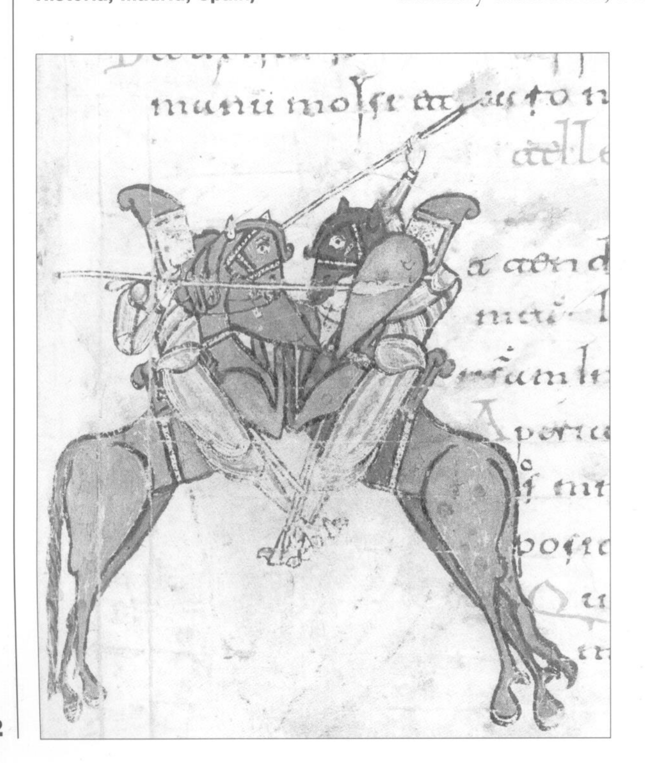
gates were angled, and there was more use of fine cut masonry and less of concrete. When anticipating an enemy attack, this time by fellow Muslim Murabitun from Morocco, the government in Granada built new water cisterns and flour mills and assembled military stores including *'arrada* stone-throwing engines – as did the Hudid rulers of Zaragoza when attacked by their Christian neighbours. Given the fragmentation of Andalus, there were few references to local navies. Nevertheless the poet Ibn 'Ubada still described the ruler of Almeria, al-Mu'tasim (AD 1051–91), reviewing his fleet in harbour.

THE MURABITUN: AN AFRICAN EMPIRE IN EUROPE

Sub-Saharan Africa was a land of legend for the early medieval Arabs, but in reality major changes were already taking place there as a result of contact with North Africa. Islamic military influence began very early, most notably in an adoption of cavalry warfare, but it took longer for Islamic concepts of equality to erode the strict social heirarchies which characterised pre-Islamic African states like Ghana. The semi-divine nature of pre-Islamic African kingship also survived long after conversion to Islam.

The Murabitun were the first Saharan Islamic religious movement to establish a large state. This expanded southwards into West Africa and northwards through Morocco to take half of the Iberian peninsula. During the first phase of Murabit expansion most soldiers consisted of Lamtuna Berber tribal contingents; and after a brief period during which the first Murabit leader, Abdalluh Ibn Yasin, rejected Saharan military traditions, the army reverted to a system of tribal 'drum groups'.

This scene of cavalry combat in the *Psalter of San Millan de Cogolla* was painted in the 11th century. The horsemen are clearly Muslims, while the emphasis given to the cloths around their heads may be an early attempt to represent Murabit warriors. Nevertheless, they carry the kite-shaped shields normally associated with Western European knights, and their horse-harness appears identical to that used by northern Spanish warriors. (Bibliotece de la Academia de la Historia, Madrid, Spain)

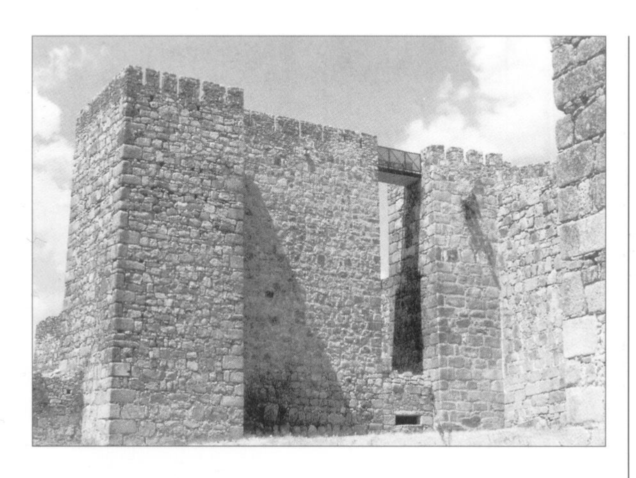


As the state expanded other peoples were drawn in, and at the peak of Murabitun power the army included Lamtuna, Jazula, Zanata and Masmuda Berbers, large numbers of black Africans recruited as slaves, a smaller corps of assorted ex-prisoners of war and, of course, Andalusians. The second Murabit ruler, Yusuf Ibn Tashfin, also created a *hasham* guard of some 2,000 African infantry; and during the first half of the 12th century the fourth ruler, Ali Ibn Yusuf, was the first North African leader to train black Africans as cavalry. He also recruited European Christian mercenary cavalry into his guard; such *rumis* and *nasara* eventually numbered several thousand men, and were permitted their own bishop in Morocco. Around AD 1095 a small group of Ghuzz Turks arrived in North Africa, but soon quarrelled with the local authorities and disappeared.

The Murabitun were a reforming movement and religion continued to be a major motivating force throughout their history. For example, when campaigning against Christian states they liked to

take church bells as war trophies, some of these then being made into mosque lamps. In fact the name Murabitun is based upon the Arabic term *ribat* and may have reflected the way in which they fought their first battles. Murabit tactics certainly introduced major changes to Saharan warfare; the typical nomadic emphasis on avoiding casualties – in an environment where human life was already tenuous – gave way to stern discipline, solid formations and a willingness to accept losses.

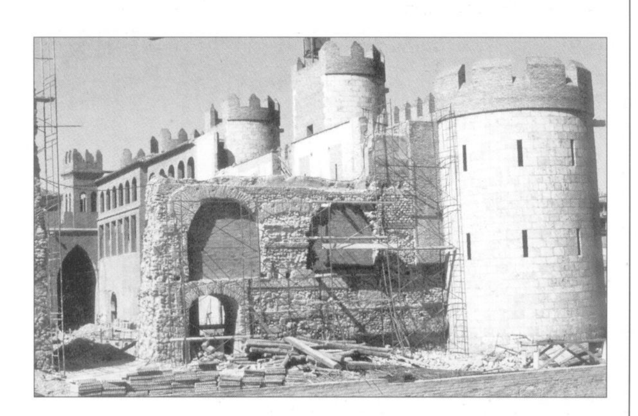
On the march the Murabitun included large numbers of camel-mounted infantry, but in battle these dismounted to form solid infantry phalanxes. Those in the front ranks used their spears as pikes while those behind supported them with javelins. Unit standard-bearers were either in the front rank or just ahead of it. Meanwhile looser formations of cavalry or camel-mounted infantry supported the infantry. At the battle of Zallaca in 1086, for example, the Murabitun and their Andalusian allies erected field fortifications with the Andalusians ahead of the main ditch and the Mubaritun behind. Elite *hasham* infantry advanced on foot behind large *lamt* shields and armed with *mizraq* javelins, breaking the Christian cavalry formations before attacking them with daggers.



Trujillo castle was not one of the biggest frontier fortifications built by the Muwahhidun in the 12th and 13th centuries, but is one of the best preserved. Its *barrana* external towers are notable. This tower is now linked to the main wall by an iron bridge; the original would have been of wood. At the bottom of the gap between the *barrana* and the main wall is a small artillery emplacement added at a much later date. (Author's photograph)

South of the Sahara armies used traditional tactics which had more in common with those of the nomads. In pagan Ghana the bulk of warriors were described as fast-moving infantry with javelins, swords and spears. They also used war-canoes for river raiding. Horses had been used in West Africa as early as the 10th century, but it would be many years before cavalry dominated warfare even in the open grasslands. The army of 11th–12th-century Ghana was said to number 200,000 men of whom 40,000 were archers. In fact several peoples in this part of Africa, including the Janawa (Guineans) and Tajuwa, were noted archers, sometimes using arrows dipped in snake poison. The Murabitun suffered severe losses from such poisoned arrows, as would the first Portuguese explorers in the mid-15th century.

The most distinctive aspect of Murabitun costume was the typical Saharan *litham* veil. According to the Arab geographer al-Yaqubi just over a century earlier, the people of the western Sahara had also veiled themselves in turban cloths and wore a single large winding sheet. Al-Mas'udi stated that many sub-Saharan peoples dressed only in animal skins, while a third Arab geographer maintained that some sub-Saharan warriors wore quilted soft armour. The Berbers of the deep Sahara were, in fact, said to consider the mouth as 'unclean' like the private parts. Even after conquering Morocco and Andalus the Murabit elite tried to stop anyone else wearing the *litham*, particularly mercenaries who were trying to pass themselves off as genuine Murabitun.



The Jafariya palace in Saragossa, enclosing a mosque and gardens, was built between AD 1046 and 1081. Its size and splendour indicate the power of one of the larger *taifa* kingdoms. These Hudids were on the front line facing Christian aggression, and for this reason their army was larger than most. (Author's photograph)

In wealthier regions one-piece iron helmets of round and pointed outline were probably more common than in Western Europe, whereas

mail armour remained the normal form of protection. A newer fashion seems to have been decorative tassels fastened to shields in Andalus, North Africa and Sicily. South of the Sahara equipment was much simpler and armour rarer. While there was a considerable increase in the use and working of iron after the 10th century, Arab geographers focused on weapons like the ebony maces used by peoples along the river Niger. African bows apparently had strings made of tree fibre, and it is also likely that the bows themselves were of simple construction. Some interesting statuettes from pre-Islamic West Africa represent horsemen with quivers on their backs, bows in hand, sometimes a two-piece helmet, and daggers strapped to the upper left arm. The first Murabit leader had the typical Saharan war-drums destroyed as pagan relics, but massed drums were soon reintroduced and proved effective psychological weapons against Christian foes.

Despite their origins in the primitive westernmost parts of Africa, the Murabitun encouraged notable advances in both civil and military architecture. For example, the bent gateway was used in Morocco and Andalus a century before it appeared in Tunisia. There was also a revival in the use of concrete; and a considerable expansion in the building of *barrana,* external towers linked to a main fortified wall by bridges.

THE MUWAHHIDUN: A MOROCCAN EMPIRE

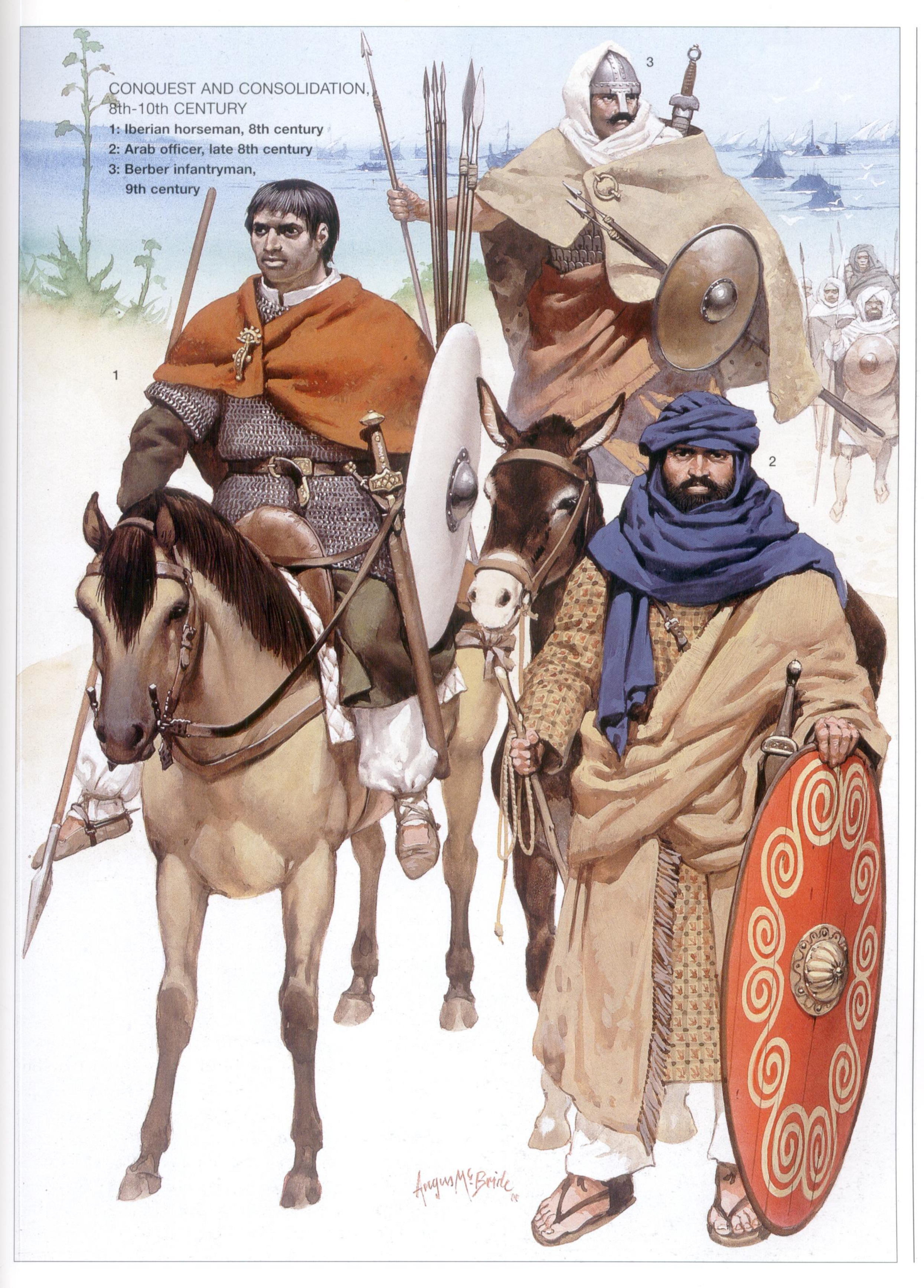
As Murabitun authority collapsed, the puritanical Muwahhidun took their place. Meanwhile in Andalus there was a second *taifa* period, most of whose rulers sprang from the local Andalusian aristocracy and amongst whom Christian Spanish influence was even stronger than during the first and better-known *muluk al-tawa'if.* Sufi 'mystical' Islamic religious brotherhoods were another feature of this troubled time, providing armed militias in several parts of Andalus.

The Christian ideology of the Reconquista was now fully developed and this led to similar intolerance on the Islamic side of the frontier. As a result much of the Mozarab Christian community migrated northwards, although in the 1160s the powerful Mozarab Azagra clan still dominated the Abin Rasin area. In Islamic Andalus society was not stratified along class lines as in feudal Europe, but was based upon networks of family or clan loyalties where each clan included rich and poor, *qa'id* castle holders and humble members of that castle's garrison. Powerful clans could again dominate small towns and sections of large cities.

The original Muwahhid army was tribal but was soon supplemented by professional troops. Some previous Murabit units seem to have been absorbed, including African troops who formed the core of the new *abid al-makhzan* guard. Other Muwahhid *murtaziqa* regular units were the *taballa* corps of black drummers, the *rumat* archers and *ghuzat* recruits under training. There were also the *mushud,* conscripts for a specific campaign, and

Many different sculptors worked on the remarkable carved capitals in the Cloisters of Monreale Cathedral in Sicily. The best are believed to have been Muslim Sicilians trained in a style of Islamic secular sculpture seen in Egypt, North Africa and Andalus. The military equipment on this group of capitals is different from that on the others and probably reflects the arms and armour of Islamic North Africa. (Author's photograph)





CONQUEST AND CONSOLIDATION,
8th-10th CENTURY
1: Iberian horseman, 8th century
2: Arab officer, late 8th century
3: Berber infantryman,
9th century
1
2
3
Angus McBride

A


THE CALIPHATE OF CORDOBA, 9th-10th CENTURY
1: Andalusian guard cavalryman, 10th century
2: Andalusian infantry archer, late 10th century
3: Andalusian armoured cavalryman, late 10th century
1
2
3
Angus McBride


TAIFA ARMIES, N.AFRICA &
SICILY, 11th CENTURY
1: Sicilian archer
2a, 2b: Andalusian soldiers wrestling
3: North African cavalryman
2a and b
1
3
Angus McBride
00


ANDALUS & MAGRIB UNDER THE MURABITUN, LATE 11th to MID-12th CENTURY
1: Murabit cavalryman, early 12th century
2: Andalusian crossbowman, early 12th century
3: Afro-Saharan archer, 12th century
1
2
3
Angus McBride 00

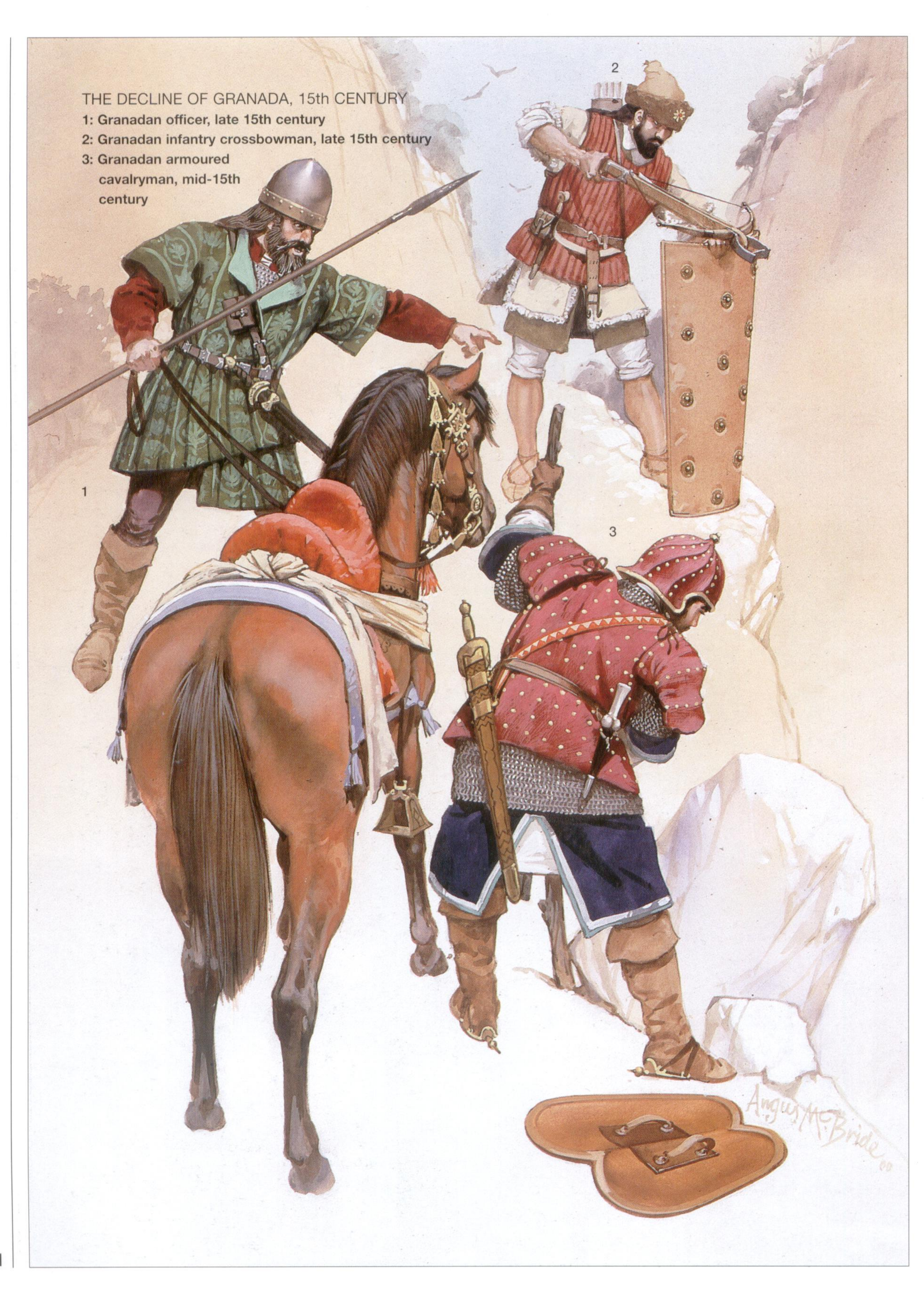
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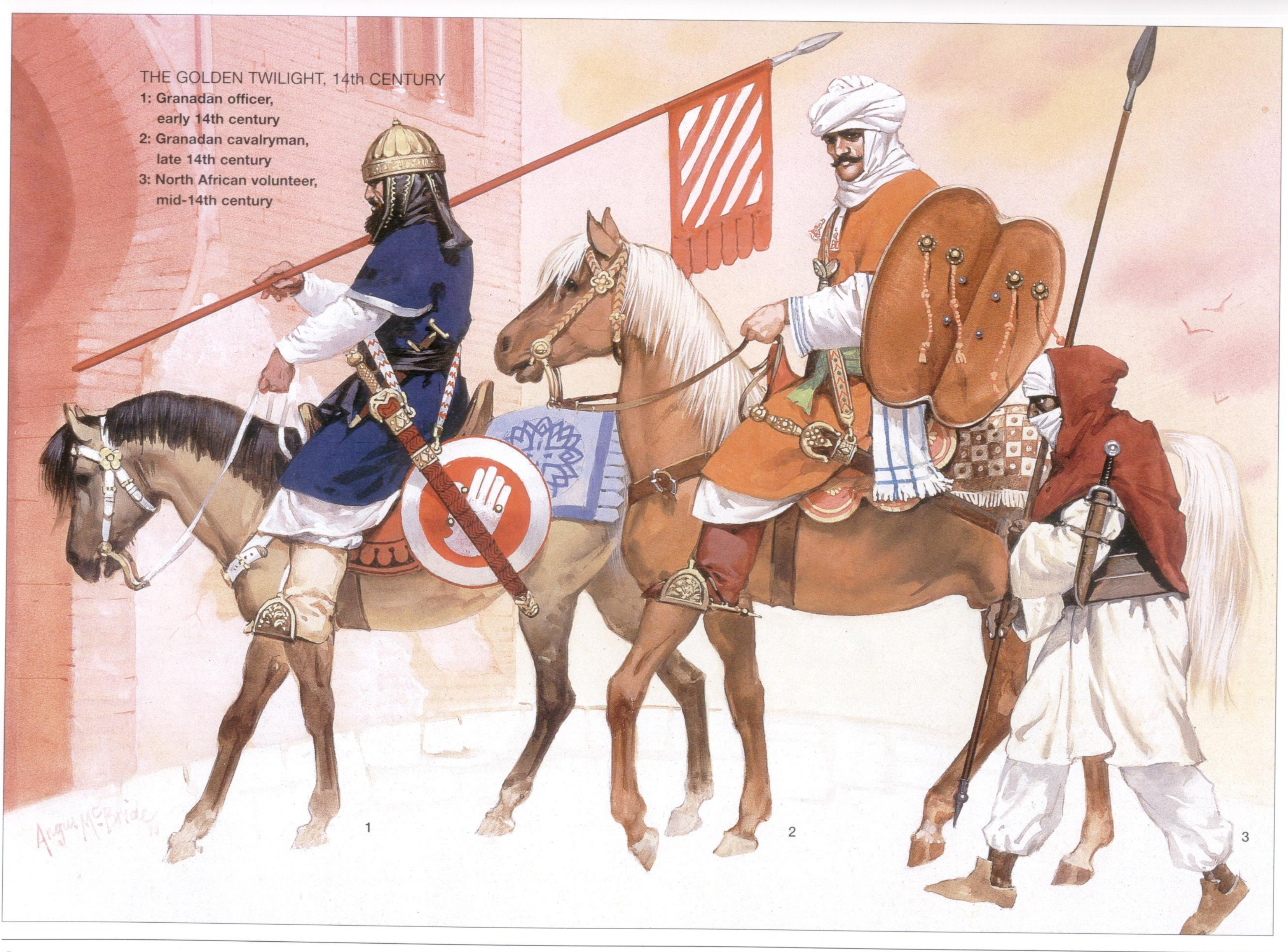


THE MUWAHHIDUN,
12th-EARLY 13th CENTURY
1: Muwahhid prince, early 13th century
2: Andalusian infantryman, late 12th century
3: Muwahhid guard cavalryman, late 12th century

E


THE AGE OF DISASTER, LATE 13th-EARLY 14th CENTURY
1: Andalusian cavalryman, late 13th century
2: Andalusian heavy infantryman, 13th century
3: North African horseman, late 13th century
4: Baggage donkey
1
2
3
4
Angus McBride 90


THE DECLINE OF GRANADA, 15th CENTURY
1: Granadan officer, late 15th century
2: Granadan infantry crossbowman, late 15th century
3: Granadan armoured cavalryman, mid-15th century
1
2
3
Angus McBride


THE GOLDEN TWILIGHT, 14th CENTURY
1: Granadan officer, early 14th century
2: Granadan cavalryman, late 14th century
3: North African volunteer, mid-14th century
1
2
3
Angus McBride

the *mutatawwi'a* volunteers. Towards the end of the Muwahhid period another elite formation appeared: the *huffaz*, consisting of the sons of tribal leaders who lived at court where they were trained in the arts of war, riding, archery, swimming and rowing.

Other minor sources of recruitment for Muwahhid armies included Banu Hilal Arabs, and a small contingent of Turkish horse-archers who reached Morocco in AD 1182–3. A small number of Kurdish refugees also arrived towards the end of the Muwahhidun era. More significant were the Christian mercenaries, whose importance actually increased as Muwahhid power declined.

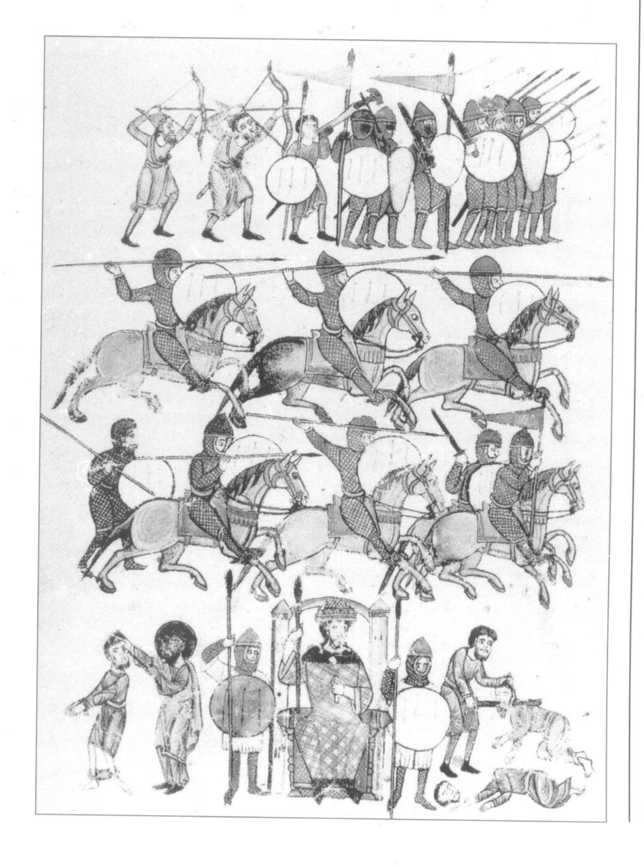
Recently the author of a treatise on archery assumed to have been written in Mamluk Egypt has been identified as the 13th-century Moroccan Abu Muhammad Ibn Maymun, and his *Kifayat* urges reliance on the infantry bow and the cavalry spear in war. In terms of morale, motivation and military ceremony, the Muwahhidun had much in common with their forerunners, particularly in the importance of flag ceremonies before an army set out, while war-drums also continued to play a major role.

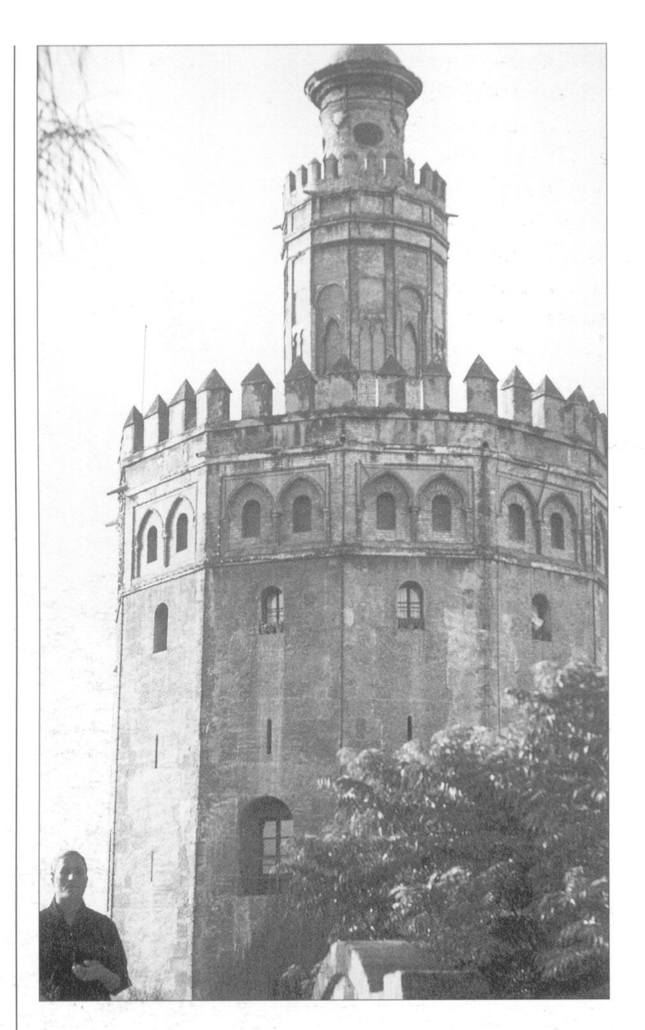
Muwahhid strategy and tactics were similarly traditional. During their early wars against the Murabitun the Muwahhidun reportedly formed a square on level ground. The outer ranks consisted of spearmen or pikemen, with shield and javelin men behind them, then slingers, and then archers, while the cavalry remained in the centre to deliver counter-charges through openings made in their own infantry ranks. The large numbers of spiked iron calthrops found on the sites of Muwahhidun battles in Spain similarly reflect these defensive tactics.

Though the puritanical Muwahhidun were very conservative in their dress, their arms and armour were more varied, while Andalusian troops may have looked similar to their Christian neighbours. Differences were mostly technological, though scale armour was particularly associated with Muslim infantry. Islamic sources provide more information about swords, al-Maqqari and Ibn al-Labbana both describing pommels decorated like pine cones, like one of two swords found in Gibraltar (see page 36).

According to Ibn Maymun several types of bow were still used, ranging from traditional Hijazi or Arab types to the most up-to-date Turkish cavalry bow. Different styles of composite bow were suited to different conditions. For example, in what Ibn Maymun considered the 'cold, damp' climate of Andalus, bows with plenty of horn, moderate amounts of sinew and less wood were best. He did not, however, think much of crossbows, despite the fact that various forms were becoming very popular. The western Islamic *qaws al-'aqqara* 'two-feet bow' was particularly used in siege warfare, while others included the *qaws al-rijl* 'foot bow', the *qaws al-rikab* or *qaws afrangi* stirrup bow, the larger *jarkh* and the massive *qaws al-lawlab,* which was spanned with a winch.

The *Beatus de Liebana* was made around AD 1220, and although it is a Spanish rather than Mozarab manuscript, the artist has modelled several military figures upon Muslim Andalusian troops. Here the army and guards of King Nebuchadnezzar have some distinctive features, such as large white shields with three tassels – a common Moorish fashion. They also have quilted soft armour worn over mail hauberks. (Pierpont Morgan Library, Ms.429, New York, USA)





The Torre de Oro in Seville stands in the edge of the river Guadalquivir and was built in AD 1220. It was originally connected to the *qasr* main citadel by long ramparts, and served as a fortified outwork to ensure access to the river for water and communications. The twelve-sided main tower supports a smaller tower to which an additional cupola was added in the 18th century. (Author's photograph)

The Muwahhidun sponsored major developments in military architecture, for example in the town of Caceres, which was surrounded by strong *barrana* external towers and had a particularly large water cistern. More sophisticated polygonal *barrana* towers also appeared, the most famous being the Torre de Oro in Seville. Another new feature was the *buherada* balcony over a main entrance. The new city of Madinat al-Fath, now called Gibraltar town, was constructed as a major naval base in the mid-12th century and perhaps for this reason the defences of Gibraltar show great attention paid to the possibility of enemy coastal landings. In fact the Muwahhidun maintained a formidable fleet at a time when the naval power of other Mediterranean Islamic states was in steep decline.

Muwahhid capabilities in siege warfare were also considerable. They made large-scale use of assorted siege engines, and it is possible that the counterweight trebuchet was actually invented in Andalus or Morocco. Furthermore it is likely that a lack of petroleum or bitumen in the Islamic West encouraged the development – in place of incendiary devices – of gunpowder weapons, which are mentioned in western Arabic sources at a remarkably early date.

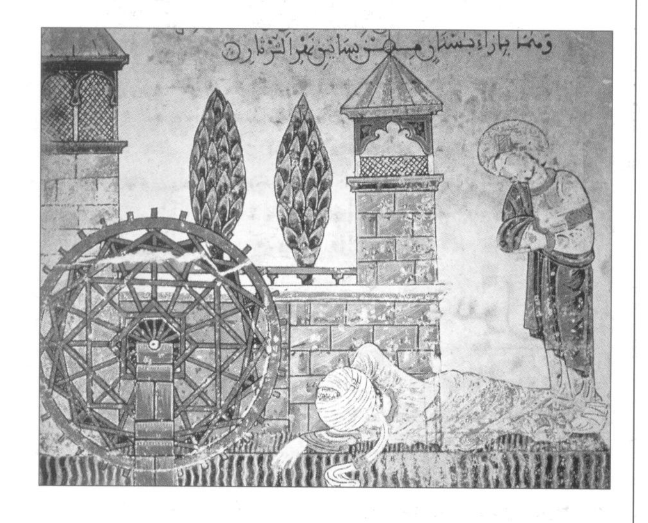
ISLAM LOOKS SOUTH

The 13th century was a time of catastrophe for Iberian Islam. Muwahhidun power collapsed, to be followed by a third *taifa* period whose rulers proved unable to resist the Christian Reconquista. The Nasrid dynasty which ruled Granada until 1492 stemmed from a family of Andalusian frontier warriors who initially maintained their position by accepting Christian suzerainty and supplying troops to support their Castilian overlords. But whereas the Nasrids subsequently reasserted their independence, other Islamic statelets were absorbed by powerful Christian neighbours.

In North and West Africa the story was different. The fall of the Muwahhidun saw another period of fragmentation, and the Marinid dynasty which eventually ruled most of Morocco were never as powerful as their predecessors. Nor could they stop the Portuguese occupying parts of northern Morocco. Instead Christian assaults prompted the development of local religious movements under the leadership of Sharifian *shaykhs* or religious leaders. Those in the north claimed descent from the Idrisids, while those in the south coalesced into the Sa'adian dynasty which seized power in 1549. Meanwhile there had been a vast conversion to Islam south of the Sahara, though some new states which emerged in this part of Africa were only superficially Islamic. Some, like Mali, were hugely rich, controlling access to gold mines which would soon lure Europeans into their great Age of Discovery.

Recruitment in Marinid Morocco was largely on a tribal basis from the rulers' own Banu Marin tribe or those allied to the dynasty such as the Banu 'And al-Wad. Each province was governed by a member of the ruling family who had his own local army. There was also an elite of Andalusians, some of whom had been Mudejars or Muslims under Christian rule and enjoyed a privileged position, free from the local loyalties which divided Moroccan tribes. According to one source the 14th-century Marinid army also included 1,500 Ghuzz Turkish cavalry, 4,000 European cavalry, 500 European horse-archers who had converted to Islam, plus infantry archers, Andalusian crossbowmen and 200 Andalusian mounted crossbowmen.

While the Marinids dominated Morocco, the Hafsids dominated Tunisia and much of Algeria, maintaining Muwahhid traditions throughout their history. In addition to ex-Muwahhid infantry known as *mashshain* (walkers) and an elite of *'irban* armed with maces, the best Hafsid troops were recruited from Berber tribes which remained true to Muwahhid teaching, though it eventually proved necessary to recruit less loyal tribes as well. Local Arab tribes were even more uncertain. A few urban militias defended their own towns but urban participation in Hafsid armies was small. A loyal guard of Andalusian refugees similarly played a vital role, most notably in the defeat of St Louis's Crusade against Tunis, though they disappeared in later decades. More exotic were the Hafsids' *janawa* (Guinean) black guard dressed in white *jubbahs,* armed with sabres and spears with silk pennons. Christian European mercenaries came from Spain and Italy, remaining Christian in Hafsid service, having their own quarter in the capital and still being mentioned in the 16th century.

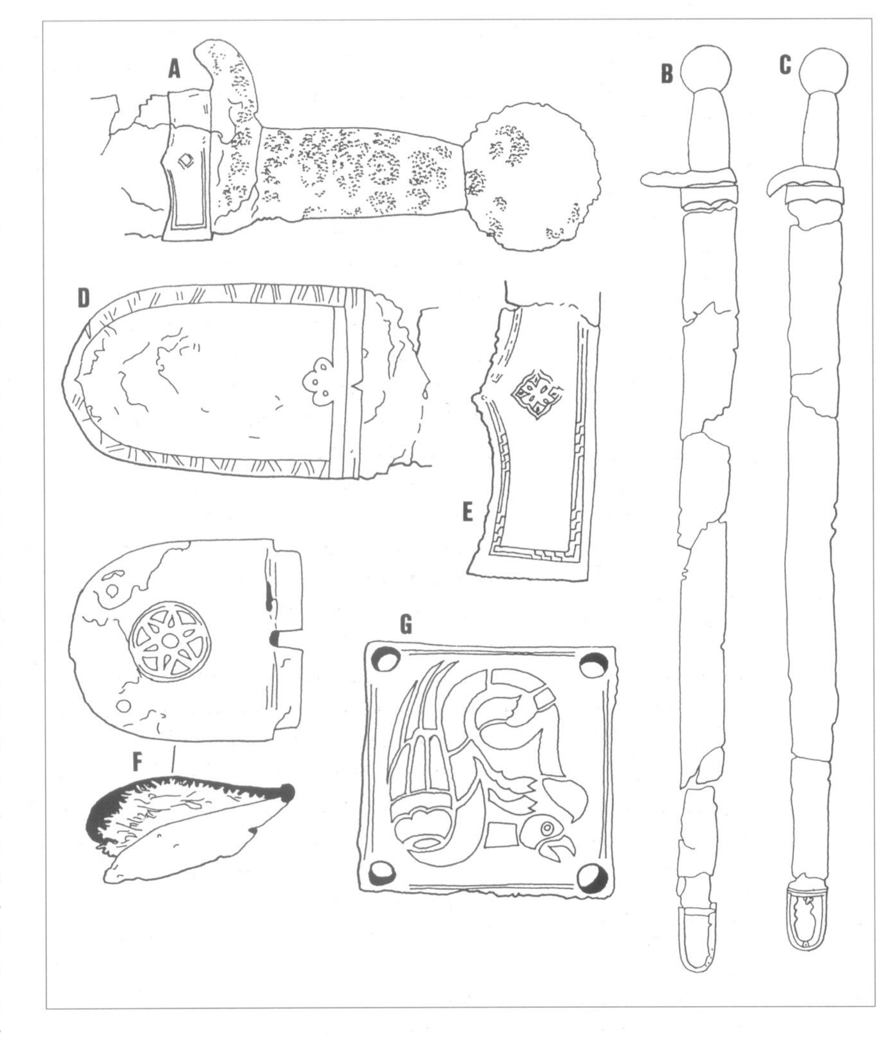


It is perhaps typical of the peaceful civilisation of Islamic Andalus that its only surviving fully illustrated manuscript is the love story of *Bayad and Riyad*. Dating from the 13th century, it illustrates Andalusian costume in great detail. Here the turbaned hero bemoans his fate while lying next to one of the water-wheels which were a feature of the irrigated and intensively cultivated valleys of Andalus. (Vatican Library, Ms.Arabe 368, Rome, Italy)

Between the Hafsids and Marinids lay the territory of the Ziyanids, whose army was largely a Berber tribal force, plus a regiment of Ghuzz inherited from the Muwahiddun and some more recent Kurdish arrivals. More remarkable still was the presence of Turkish *mamluk* soldiers, purchased as slaves in Cairo and forming an elite guard unit in 14th-century Mali south of the Sahara.

In terms of organisation and structure, the armies of late medieval North Africa reflected the previous Muwahhid period. Fiefs comparable to the *'iqtas* of the Middle East were now a common feature, being called *ratib* in Morocco and *baraka* in Tunisia. The senior commander was, of course, the ruler himself. The role of the *wazir* was usually administrative, while the main corps might be led by a *qa'id* with logistical support the responsibility of a *sahib* or senior secretary. The military structure of the expanding sub-Saharan Islamic state of Mali was supposedly based upon that of Islamic Egypt, but much of the east was under princes of the ruling dynasty while much of the rest, as far as the Atlantic Ocean, was under its own hereditary aristocracy. This structure continued in the Songhai successor state where royal princes were called *kurmina fari* or 'chiefs of the western front' while a provincial aristocracy were called the *Dendi.* The famous North African traveller Ibn Battuta

lived in West Africa in the 1350s, and reported that the ruler of Mali had a guard of 300 slave-recruited soldiers, while each *farari* or commander had his own unit with spears, bows or drums.



Training, tactics and strategy remained highly traditional in later medieval North Africa. For example, at the battle of Ecija in AD 1275, when a Marinid army defeated the Castilians, Muslim infantry adopted a defensive formation, awaiting the enemy charge while using their spears as pikes. On the other hand the great historian Ibn Khaldun described the Berber tactics of his day as relying upon traditional Arab *karr wa farr,* 'attack and withdrawal', while using pack camels as a form of living field fortification. In broader terms Hafṣid strategy was one of movement and siege warfare, avoiding major battles whenever possible, with armies reportedly being able to cover 30km (18 miles) a day in flat country. To some extent such tactics were reflected south of the Sahara, where cavalry had become the dominant, though certainly not the most numerous arm by the late 13th century.

Hafsid military costume included a loose *taylasan* head-cloth. In early 14th-century Morocco, however, the army was described as wearing light turbans which covered the head, face and shoulders except for the eyes – in other words the *litham.* In addition soldiers were distinguished by boots and long spurs, while on review they had gold or silver belts. Senior military officers in sub-Saharan Mali also wore light boots and spurs in the mid-14th century.

During the 13th century only noble Berber cavalry had mail hauberks. Leather *daraqa* shields with gilded or silvered bosses were the most numerous military item in a substantial gift of equipment sent by the Marinid ruler to the Mamluk Sultan of Egypt. Other gifts were tents, gilded and jewelled swords, belts or baldrics, decorated saddles and horse-harness, and a single iron helmet shaped like a *shashiya* hat – in other words extended down the wearer's neck. A short curved sabre was also adopted in Morocco during the very late medieval period. The Hafsid army had even less protection, with only its leaders wearing iron

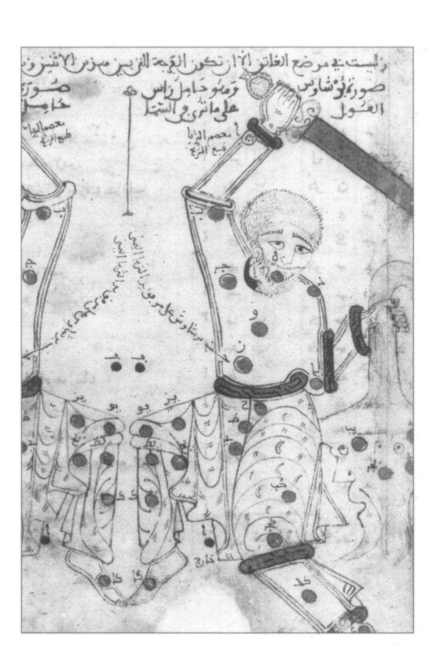
OPPOSITE **Two swords and part of a swordbelt or baldric found in Martin's Cave, Gibraltar, date from the mid-12th century. They may have been buried in a virtually inaccessible cave on the precipitous eastern side of the Rock of Gibraltar when the Muwahhid Caliph founded Madinat al-Fath, today's Gibraltar town. This might be an interesting survival of pagan Berber talismanic practices intended to offer 'magical' protection to a fortified place. Both swords have hilts made entirely of iron, which was an ancient Arab style, but one of these (A & C) was also covered in a scale or feather-like decoration made of tiny silver or tin spots. One of the scabbard lockets (E) incorporates a 'ropework' motif also seen in manuscripts and on architecture, while the chape (D) has a much simpler decoration. One of the swordbelts or baldrics also has a beautiful enamelled bronze buckle plate (G) and a simple bronze strap-end (F). This latter is also interesting because it still encloses a fragment of the belt itself, which was made of thick fabric rather than leather. (Buckle plate: British Museum, inv.67, 12-23, 3, London, England; other items the Royal Armouries, inv.67, 12-23, 1, 2 & 5, Leeds, England)**

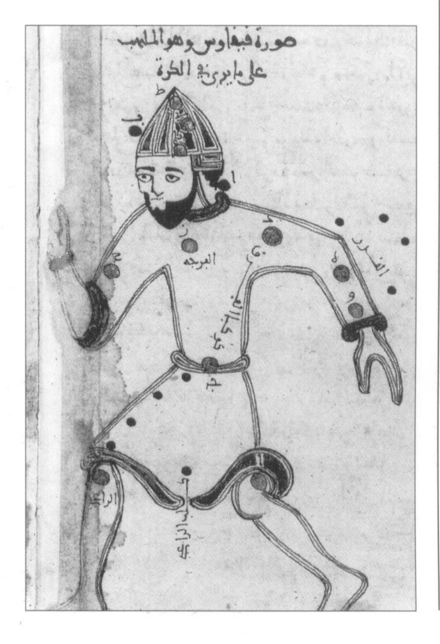
armour. Others had leather armour, sometimes of the same leather as the famous *lamt* shields, while some also carried daggers strapped to their upper left arms, as seen south of the Sahara.

The garrison of the Moroccan port of Ceuta were renowned archers and crossbowmen on land and at sea, using Arab bows for long-range harassment and powerful *'aqqara* crossbows at closer range. These incorporated a substantial yew stave, since composite bows were less suitable at sea, particularly in the Atlantic. Once again Ibn Battuta provides clear information about the weaponry of mid-14th-century Mali, where senior officers had gilded scabbards plus one gold and one silver spear as signs of their authority. Each *farari* commander was also permitted horns made of elephant tusks. A few examples of 15th-century Egyptian Mamluk mail armour still exist in the treasuries of some sub-Saharan tribal kingdoms, but when these reached the area is unknown. Meanwhile the ebony maces noted by Arab geographers in the 13th century fell from favour except in backward regions.

Cannon had virtually no influence on North African fortification until the later 15th century, despite evidence that gunpowder was used at a very early date, including an explosive container used by the Marinids at Sijilmasa in AD 1274. Meanwhile the fortification of the strategic port of Ceuta included outposts inland, ditches across the isthmus, and a fortified tower on an islet on the southern side of the peninsula and linked to the land by a bridge – this was a naval version of the *barrana*. A Christian fleet did try to blockade Ceuta in the 13th century, but was driven off by a naval sortie which captured a ship whose rigging had been jammed by arrows.

The 13th century saw a decline in North Arican naval power, though there was some revival in the 14th–15th centuries in response to Christian piracy, when the Hafsid attacked pirate lairs in Sicily, Malta and elsewhere. According to a Portuguese observer in 1428 most Hafsid vessels were galleys of 25 to 30 rowing benches, though they also included seven great galleys capable of carrying 100 horses.





A copy of Al-Sufi's *Kitab al-Sufar, Books of Fixed Stars*, made in Ceuta in AD 1224; (left) Perseus, and (right) Cepheus. This crude manuscript comes from northern Morocco. It includes a figure wielding a straight sword, and another wearing a distinctive helmet with an extended neck guard. (Vatican Library, Ms.Ross 1033, Rome, Italy)

GRANADA – THE FINAL BASTION

OPPOSITE **Three sections from a wall-painting of the conquest of Majorca by King Jaime I of Aragon, made in the late 13th century and including accurate representations of Moorish troops, though from the time of the artist rather than the actual conquest.**
(A) Andalusian defenders, including one black African and a man using a staff sling.
(B) Unarmoured Andalusian infantry, one of whom has a shield bearing the Hand of Fatima.
(C) Andalusian cavalry, three of whom wear mail armour beneath their tunics. Note also the two contrasting flags – one with an Arabic inscription panel, and the other using a geometric motif as in Christian Spanish heraldry. (Museo de Artes de Cataluna, Barcelona, Spain)

Although the Nasrid amirate of Granada was an Islamic state, it became increasingly similar to its Christian neighbours in several respects as Granada became a truly Spanish Islamic entity. Individual warriors crossed the frontier and changed allegiance, sometimes more than once, and unofficial alliances were forged between opposing frontier clans. At another level, however, Granadan society remained warlike with a siege mentality, making religiously motivated warfare popular and encouraging the presence of North African volunteers (see Campaign 53, *Granada 1492*). Nevertheless, these North African *ghazis* were often unpopular; indeed, some Granadan rulers preferred to cultivate close relations with Christian Castile rather than Islamic Morocco.

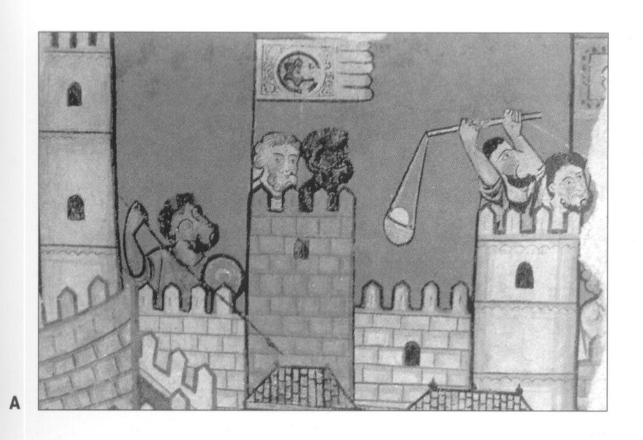
Nasrid armies were notably innovative. The *thagri* or warriors of the *thughur* frontier regions had long played a major role, and several heavily fortified provinces were dotted with hilltop castles, dominated by a military elite comparable to the knightly class of Christian Europe. Yet the most effective troops were not heavily armoured knights but relatively light cavalry and light infantry – the *almogavers* of 13th- and 14th-century Spanish sources.

The first Nasrid army largely consisted of Andalusian cavalry and infantry from the ruling Nasrid clan, its allies and vassals recruited via the *jund* system of territorial conscription. These *jundi mutadawwan* or registered soldiers had permanent military obligations, but from the early days the Nasrids also employed Berber volunteers and mercenaries, plus a bodyguard of Christians from the north. Several 14th-century Granadan rulers encouraged further Berber *ghuzat* volunteers to serve in Andalus, until members of the Zanata tribe became virtually a separate militia. During his second reign, however, Muhammad V downgraded these Berbers and introduced a fairer system of local recruitment. In addition Muhammad V had a bodyguard of around 200 elite light cavalry. Their numbers were enlarged by some of his successors, while ex-Christian *mamluks* called *ma'lughun* formed another or perhaps related guard unit.

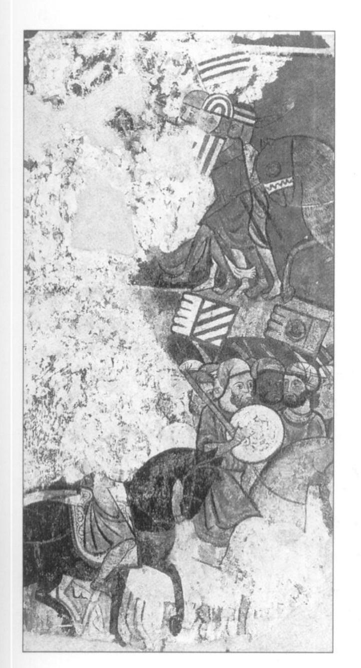
The status of the rural military elite in 13th-century Andalus had been lower than that of knights in Christian Iberia but higher than that of the tribal cavalry of North Africa. The garrisons of important frontier citadels were commanded by a *shaykh khassa* and perhaps formed part of a provincial *jund* led by a *ra'is,* while each major division of the Granadan army was commanded by a *wali.* The officer structure was again traditional: an *'amir* with a *raya* flag leading 5,000 men, a *qa'id* with an *'alam* leading 1,000, a *naqib* with a *liwa'* leading 200, an *'arif* with a *band* leading 40, and a *nazir* with an *'uqda* leading eight. A separate *shurta* or gendarmerie in Granada city was headed by the *sahib al-shurta,* while the North African volunteers also had their own command structure headed by the *shaykh al-ghuzat.* The main military centres were Granada, Malaga, Guadix and Ronda, plus numerous smaller bases along the frontiers and coast; the North African volunteers had their



Also characteristic of Andalusian military architecture were long doubled walls linking a fortified city with outlying defensive structures. Here, at Malaga, the outlying position is the Gibralfaro or 'Lighthouse Hill' castle on a steep hill overlooking the city. These linked Gibralfaro defences were largely built in the 14th century. (Author's photograph)


A


B


C

main headquarters in the coastal castle of Fuengirola. On campaign Granadan morale was supported by religious figures, orthodox and otherwise, plus a recognised corps of local *dalil* guides, medics, armourers and orators or poets. Military advice as well as arms and armour could also be obtained from the main mosque in Granada.

In strategic terms Granadan warfare was dominated by passes through the surrounding mountain ranges. Raids tended to aim at economic targets such as orchards or mills, and consequently Granada developed sophisticated early warning systems. Local light troops tried to harass raiders while the peasantry took refuge in nearby fortifications. The enemy would be ambushed where possible, and if a more determined resistance proved necessary Granadan infantry would make use of natural obstacles, orchards or irrigation ditches in an attempt to hamper the movement of the enemy's armoured cavalry.

Arms and equipment

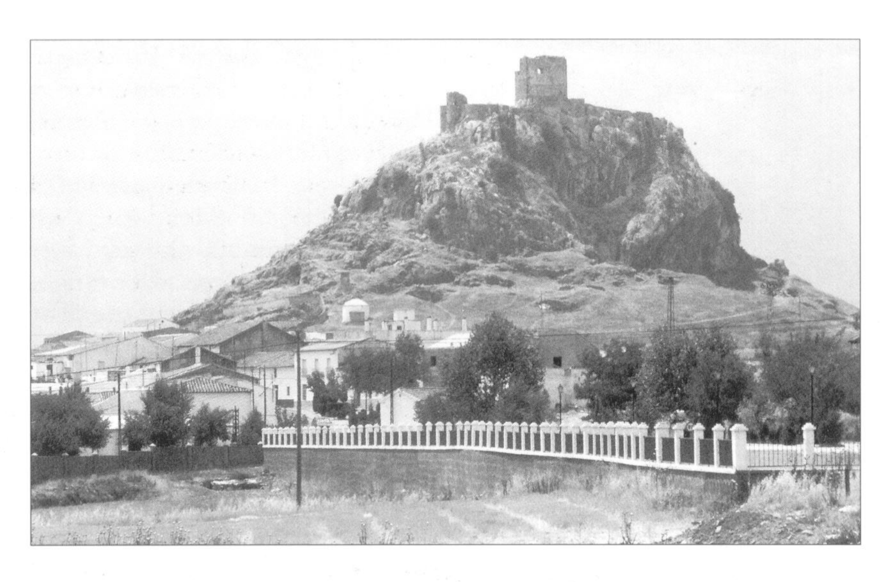
Granadan cavalry equipment did, however, change considerably. Up to the early 14th-century horsemen were similar to their Christian opponents, with each armoured cavalryman having two horses. But as Berber military influence increased, the number of Granadan cavalry increased and each usually only had one mount; at the same time their armour became significantly lighter. By the 15th century Granadan *jinetes* or light cavalry still had short cuirasses, light helmets, leather shields, short spears with broad blades, and javelins.

Crossbowmen seem to have formed the majority of Granadan infantry from an early date, including Berber volunteers. One particularly large early 14th century force numbered 8,000 cavalry and 75,000 crossbowmen – 50,000 of these from the Alpujarras mountains alone. Other sources indicate that in open battle Granadan tactics remained traditional, with light cavalry attempting to disrupt the Christian advance against Moorish infantry, Granadan horsemen first throwing javelins before closing with swords. They tended to attack in small groups, protecting themselves with their leather shields, and returning to the attack several times.

Spanish influence on Granadan costume was obvious in the 14th–15th centuries. The result was the development of a specifically Andalusian *tafsil* or fashion, different from that of the Middle East or North Africa. Ibn Sa'id noted that 13th-century Andalusian soldiers dressed and equipped themselves in virtually the same manner as their Christian opponents. Even the scarlet *qaba'* cloak worn by officers probably came from the Spanish *capo* rather than the Persian *qaba'*.

The wealth of 13th-century Andalus, the threat from the north and the fact that Andalusian troops were relatively heavily armoured must have stimulated a flourishing arms industry, Islamic Murcia being famed for mail hauberks and iron cuirasses, some gilded. According to Ibn Sa'id the cavalry used *dir'* mail hauberks, sometimes full mail horse armour, large wooden *turs* shields, heavy lances, light *tabarzin* 'saddle

axes' and sometimes bows. During the Aragonese conquest of Majorca, for example, a Moorish cavalryman was described as having a quilted *perpunt*, a long European sword, scabbard and belt, a shield, a spear, and a helmet made in Saragossa or Syracuse. Ibn al-Khatib wrote that Andalusian horsemen still wore 'a long hauberk, hang their shields [from their shoulders], have ungilded helmets, have lances with large iron blades, and have saddles with hideous extensions to the cantle which make them one with the horse'. Later in the 14th century, however, Ibn Hudhayl indicated that the old long-sleeved, long-hemmed type of hauberk was now considered unnecessary. He also described the scale-lined *misruda* which may be identified with the European brigandine, the 'woven and braided' *jidla* which seems comparable to the later European jack, and the traditional Islamic lamellar *jawshan*.



The castle of Belmez, north-west of Cordoba, is a particularly dramatic example of a small fortress perched on a rocky outcrop. Such castles relied on an inaccessible position for their strength. (Author's photograph)

Where helmets are concerned, all the evidence shows that Andalusian cavalry abandoned the heavy European-style protections worn in the 13th century in preference for various forms of light, close-fitting helmets. The leather *daraqa* was now by far the most common shield, and was held well away from the body to absorb the shock of a blow. The famous *jinete* or 'Granadan' sword was designed for light cavalry tactics and was made in Granada, Almeria and Murcia, whereas a single-edged curved sword sometimes seen in later 15th-century Granada was probably of North African origin.

Crossbows incorporating composite bowstaves had now become the dominant infantry weapon. Though Ibn Hudhayl believed the Arab bow to be better suited to a horseman, Granadan troops often used crossbows on horseback. Ibn Hudhayl then describes the construction of a crossbow in great detail, naming the different woods, and the mathematical accuracy needed to ensure the bow was correctly attached to the stock. The stirrup was fastened with a single long strap of male ibex leather, while the bowstrings were of cotton. He also noted that the art of shooting depended above all upon experience and smoothness in squeezing the trigger.

In the 13th century Ibn Sa'id stated that each Andalusian horseman was distinguished by his own heraldic device, just like a Spanish knight, but the abandonment of European heavy cavalry arms and tactics was mirrored by an abandonment of such European-style heraldry. Instead most Nasrid military banners were red and incorporated traditional religious inscriptions.

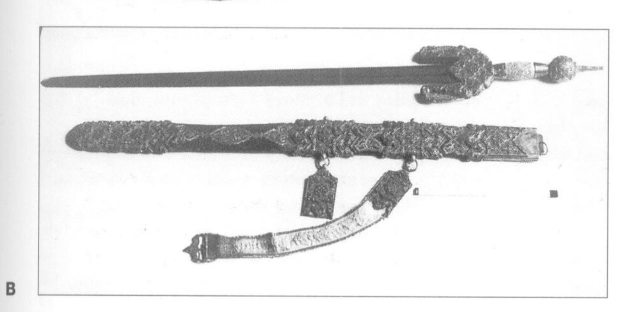
Given its circumstances it is not surprising to find that the amirate of Granada placed a high priority on fortification. The Nasrid rulers had found existing defences old-fashioned and sometimes dilapidated;

OPPOSITE **Most of these surviving objects are associated with the last ruler of Granada, Muhammad XII, known to Spaniards as Boabdil.**
(A) Sallet helmet of probable Spanish manufacture, gilded and decorated with inlaid enamel elements in Granada. (Metropolitan Museum of Art, New York, USA)
(B) Sword and scabbard of Granadan form with part of its baldric. (Museo del Ejercito, Madrid, Spain)
(C) Dagger and sheath, plus an eating knife, belt, purse and larger pouch, said to have been taken from Boabdil when he was first captured by the Castilians. (Real Armeria, inv.G.361, Madrid, Spain)
(D) Another, smaller form of sword and scabbard said to have formed parts of Boabdil's armoury. (Museo del Ejercito, Madrid, Spain)
(E) Plain example of North African or Granadan *daraqa* shield, 15th or 16th century. This example has no connection with Boabdil. (Royal Armouries, Leeds, England)

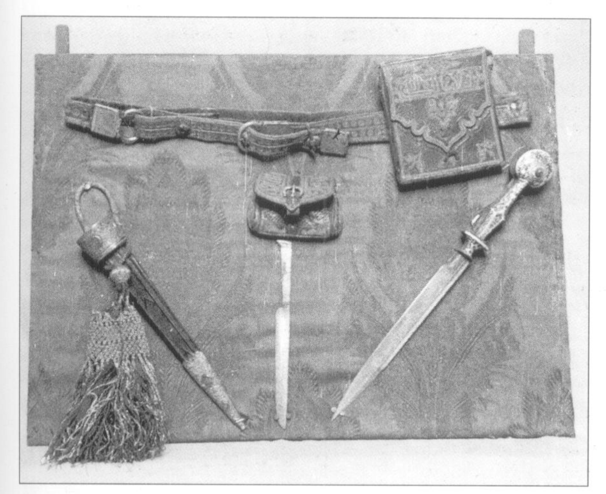
hence a major strengthening and up-dating programme was required. This was most noticeable along the coasts, with the construction of *tali'a* watchtowers and *ribats* with volunteer garrisons. Many frontier castles looked much like their Spanish opposite numbers, being built of stone with donjons and doubled enceinte walls. Larger Nasrid fortresses were in an essentially Muwahhid style, with the addition of double- or even triple-bent entrances, and occasionally a *suluqiyya* lower additional wall outside the main fortification. Some were also given separate external castles as larger developments of the *barrani* external tower, sometimes linked to the primary defensive structure by a bridge over the outer wall. Another new feature was the *qalahurra* or particularly luxurious fortified tower used by the ruler himself. Finally, loopholes for cannon were added to some later Granadan fortresses, with the erection of artillery bastions at the base of certain vital towers. Granadan defenders had used cannon against Christian shipping during the siege of Algeciras in 1342–44, some shooting balls and others large arrows. A century and a half later the last defenders of Granada had firearms ranging from light hand-held weapons to substantial cannon.

Islamic fleets tried to keep the Straits of Gibraltar open so that Granada could be resupplied from North Africa, and before the loss of Gibraltar a number of large transports were based there. The fleet, or at least its force of galleys, was divided into *ustul* squadrons and was commanded by the *qa'id al-bahr*. Its main strength was in archers and crossbowmen, each ship having a *ra'is* in charge of sailing with a *qa'id* in command of marines and weapons. Thereafter the decline of Granadan naval power was a major factor in its final fall.

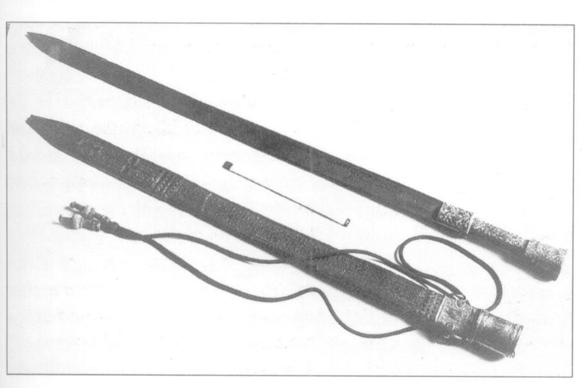
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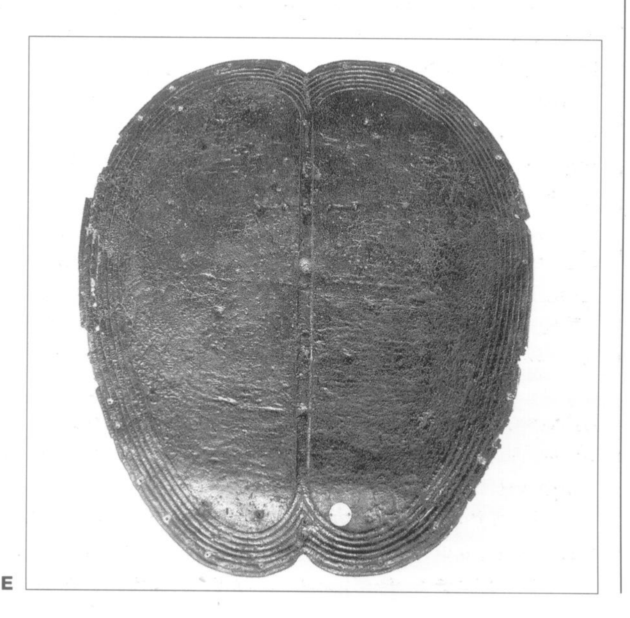
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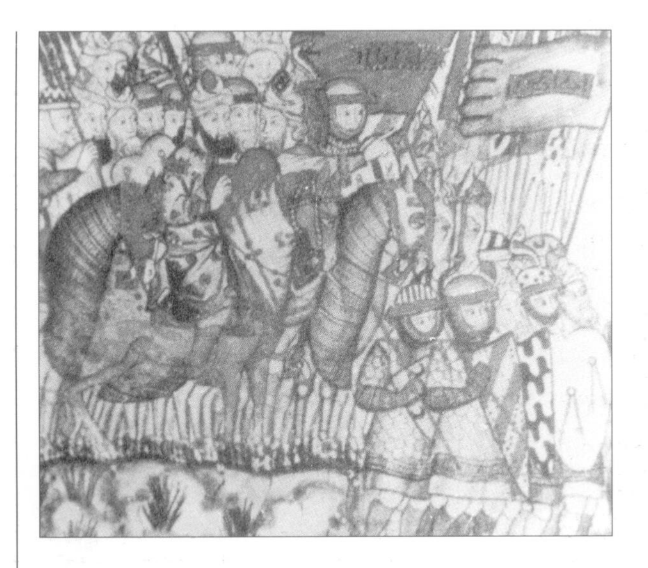
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D



E





Two illustrations of Andalusian Islamic armies in the famous and superbly illustrated *Cantigas of King Alfonso the Wise*. This Castilian manuscript from the end of the 13th century provides the most accurate and varied representations of Andalusian and North African arms, armour, military equipment and costume. In the first miniature, *Cantiga 165* (f.221v), a Moorish army includes heavily armoured infantry, some wearing scale armour, plus a turbaned man (bottom right) with a large version of the leather *daraqa* shield. The cavalry are even more varied, including fully armoured men, one with a crested great helm, more lightly equipped horsemen wearing helmets with European-style heraldic decoration, and others wearing only turbans. The leader rides a horse with a decorative cloth around its neck while two other men have fully armoured horses.

The second picture, *Cantiga 99* (f.144r), is only slightly less crowded, but again shows both armoured and unarmoured cavalry, plus servants with a mule or donkey carrying tents on its back. (Biblioteca, Ms.Cod.T.1.1, Escorial Monastery, Spain)

FURTHER READING

Abun-Nasr, J.M., *A History of the Maghrib in the Islamic Period* (Cambridge 1987)

Ahmad, Aziz, *A History of Islamic Sicily* (Edinburgh 1975)

Allouche, I.S., 'Une texte relatif aux premiers canons', *Hespéris* XXXII (1945)

Amari, M., *Storia dei Musulmani di Sicilia* (Catania 1933)

Arié, R., 'Quelques Remarques sur le Costume des Musulmans d'Espagne au Temps des Nasrides', *Arabica* XII (1965)

Arié, R., *L'Espagne Musulmane au temps des Nasrides (1232-1492)* (Paris 1973)

Basset, H., 'Sanctuaires et Forteresses Almohades', *Hespéris* VII (1927)

Bazzana, A., 'Forteresses du Royaume nasride de Grenade (XIIIe-XVe siècles): la défense des frontières', *Château Gaillard* XI (Caen 1983)

Brett, M., 'The Military Interest of the Battle of Haydaran' in V.J. Parry & M.E.Yapp, edits., *War, Technology and Society in the Middle East* (London 1975)

Brunschwig, R., *La Berberie Orientale sous les Hafsides des origines à la fin du XVe siècle* (Paris 1940-47)

Canard, M., 'Les Relations entre les Mérinides et Mamelouks au XIVe Siècle', *Annales de l'Institut d'Etudes Orientales de la Faculté des Lettres d'Alger* V (1939-41)

Collins, R., *The Arab Conquest of Spain 710-797* (London 1989)

Eguaras, A.M., et.al., 'La Ballestra Nazari del Museum Arqueologico de Granada', *Cuadernos de la Alhambra* XVIII (1982)

Esclava Galan, J., *Grandes batallas de la historia de España* (Madrid 1994)

Faris, N.A., & R.P.Elmer, *Arab Archery* (Princeton 1945): the authors were unaware that the text they translated was Ibn Maymun's *Kifayat...*, a 13th C Moroccan manual of archery.

Ferrandis Torres, J., 'Espadas Granadinas de la Jineta', *Archivo Español de Arte* XVI (1943)

Fisher, G., *Barbary Legend: War, Trade and Piracy in North Africa 1415-1830* (Oxford 1957)

Garcia Gomez, E., 'Armas, Banderas, Tièndas de Campaña, Monturas y Correos en los "Anales de Al-Hakam II" por Isa Razi', *Andalus* XXXII (1967)

Glick, T.F., *From Muslim Fortress to Christian Castle, Social and Cultural Change in Medieval Spain* (Manchester 1995)

Glick, T.F., *Islamic and Christian Spain in the Early Middle Ages* (Princeton 1979)

Gomez Moreno, M., 'Pinturas de Moros en el Partal Alhambra', in *Textas de Gomez Moreno sobre la Alhambra Musulmana. Cuadernos de la Alhambra VI* (Granada 1970)

Guerrero Lovillo, J., *Las Cantigas: Estudio Arqueologico de sus Miniaturas* (Madrid 1949)

Hamdun, S., & N.King, *Ibn Battuta in Black Africa* (London 1975)

Harvey, L.P., *Islamic Spain 1250 to 1500* (Chicago & London 1990)

Hoffmeyer, A.B. de, *Arms and Armour in Spain, a short survey, vol.I* (Madrid 1972), *vol.II* (Madrid 1982)

Hopkins, J.F.P., & N.Levtzion, *Corpus of Early Arabic Sources for West African History* (Cambridge 1981)

Hopkins, J.F.P., *Medieval Muslim Goverment in Barbary, until the sixth century of the Hijra* (London 1958)

Huici Miranda, H., *Las grandes batallas de la Reconquista durante los invasiones africanas* (Madrid 1956)

Ibn Hawqal, trans.J.K.Kramers & G.Wiet, *Configuration de la Terra, Kitab Surat al'Ard* (Beirut & Paris 1964)

Ibn Hudhayl, trans.L.Mercier, *L'Ornament des Armes* (Paris 1939)

Ibn Hudhayl, trans.L.Mercier, *La Parure des Cavaliers et l'Insigne des Preux* (Paris 1924); trans.M.J.Viguera, *Gala de Caballeros, Blasons de Paladines* (Madrid 1977)

Jacques-Meunie, D., 'Le Nom Berbère d'un poignard Maghrébin au XIe siècle d'aprés un texte Arabe de l'Egypte', *Journal Asiatique* CCL (1962)

Ladero Quesada, M.A., *Granada, Historia de un Pais Islamico (1232-1571)* (Granada 1969)

Latham, J.D., 'The Strategic Position and Defence of Ceuta in the Later Muslim Period', *Islamic Quarterly* XV (1971)
Lévi Provençal, E., *Histoire de l'Espagne Musulmane* (Paris 1950-67)
Lévi Provençal, E., *L'Espagne Musulmane au Xeme siècle* (Paris 1932)
Lomax, D.W., *The Reconquest of Spain* (London 1978)
Loez de Coca Castañer, J.E., 'Institutions on the Castilian-Granadan Frontier, 1369-1482', in R.Bartlett & A.MacKay, edits., *Medieval Frontier Societies* (Oxford 1989)
Mantran, R., & C. de la Roncière, 'Africa Opens up to the Old Worlds', in R.Fossier, edit., *The Cambridge Illustrated History of the Middle Ages, vol. III, 1250-1520* (London 1986)
Mestre Campi, J., & F.Sabaté, *Atlas de la Reconquista: La frontera peninsular entre los siglos VIII y XV* (Barcelona 1998)
Moraes Farias, P.F. de, 'The Almoravids: Some Questions Concerning the Characters of the Movement during its periods of Closest Contact with the Western Sudan', *Bulletin de l'Institut Fondamental d'Afrique Noir* ser.B, XXIX (1967)
Norris, H.T., *The Berbers in Arabic Literature* (London 1982)
Prescott, W.H., edit. & intro.A.D.McJoynt, *The Art of War in Spain. The Conquest of Granada 1481-1492* (London 1995)
Pryor, J.H., & S. Bellabarba, 'The Medieval Muslim Ships of the Pisan Bacini', *The Mariner's Mirror* LXXIII (1990)
Ricard, R., & L.Torres Balbas, 'Caceres y su cerca Almohade', *Andalus* XIII (1948)
Santaella, R.G.P., & J.E.L.de Coca Castañer, *Historia de Granada, vol.II: La Epoca Medieval, Siglos VIII-XV* (Granada 1987)
Slousch, N., 'L'Empire des Berghouata et les origines de Blad es-Siba', *Revue du Monde Musulman* X (1910)
Soler del Campo, A., 'Sistemas de Combate en la Iconografia Mozarabe y Andalusi Altomedieval', *Boletin de la Associacion Española de Orientalistas* XXII (1986)
Soler del Campo, A., *La Evolucion del Armamento Medieval en el Reino Castellano-Leones y al-Andalus (siglos XII-XIV)* (Madrid 1993)
Taha, 'Abd al Wahid Dhanun, *The Muslim Conquest and Settlement of North Africa and Spain* (London 1989)
Terrasse, H., 'L'Espagne Musulmane et l'héritage Wisigothique', in *Etudes d'Orientalisme dédiées à la Mémoire de Lévi-Provençal* (Paris 1962)
Terrasse, H., 'La Vie d'un Royaume Berbère du Xie siècle Espagnol: L'Emirat Ziride de Grenade', *Mélanges de la Casa de Velazquez* I (1965)
Torres Delgado, C., 'El Ejercito y las Fortificaciones del Reino Nazari di Granada', in *Gladius: Las Armas en la Historia* (Madrid 1988)
Turtushi, al-, trans.M.Alarcon, *Lampara de los Principes* (Madrid 1931)
'Umari, al-, trans.Gaudefroy-Demombynes, *Masalik el Absar fi Mamalik el Amsar: L'Afrique, moins l'Egypte* (Paris 1927)
Wasserstein, D., *The Rise and Fall of the Party Kings* (Princeton 1985)
Zozaya, J., 'The Fortifications of al-Andalus', in J.D.Dodds, edit., *Al-Andalus: The Art of Islamic Spain* (New York 1992)

THE PLATES

A: CONQUEST AND CONSOLIDATION IN THE MAGRIB, 8TH–10TH CENTURY

The Arab development of large galleys capable of transporting war horses gave them a distinct strategic advantage, and the provincial *jund* armies were soon raiding various Mediterranean islands. Nevertheless, these forces always had more infantry than cavalry.

A1: Iberian horseman, 8th century

No pictorial sources and exceptionally few military artefacts survive from the first decades of Islamic rule in the Iberian peninsula. This cavalry warrior is based upon written information, the last Visigothic period, and sources from the residual Christian region of northern Spain. Men of Visigothic and Iberian origin converted to Islam to serve in Andalusian Islamic armies, while others served while remaining Christian. His only armour is a simple short-sleeved mail hauberk, while other aspects of his equipment may date from just before the Islamic conquest. His lack of stirrups and frameless saddle reflect a tradition of horsemanship which would continue in Islamic and Christian Iberia for two centuries. (Main sources: shield-boss found in Le Vieux Poitiers area, possibly Islamic mid-8th century, location unknown; sword hilt, 6th–7th century, Museum, Beja, Portugal; bridle bit, early 8th century, Real Armeria, Madrid; stone sarcophagus from Alcaudete, 6th–7th century, Arch. Museum, Madrid)

A2: Arab officer, late 8th century

This figure is again largely based on written sources, plus pictures from the Middle East. His headcloth is of a Syrian form while his large cloak would remain typical of North Africa for over a thousand years. The sword is a hypothetical reconstruction of a local Arab development of the Indian *sayf al-hind*. (Main sources: swords from Lung river & Lagore Crannog, Nat.Museum, Dublin; wall paintings, 8th century, in situ Qusayr Amra, Jordan)

A3: Berber infantryman, 9th century

These javelins, shield and simple costume are typically Berber while the man's helmet and lamellar cuirass have been captured from the Byzantines. The wearing of a sword on the back is shown in several places and seems to be an Arab infantry tradition. (Main sources: Byzantine relief carvings from various locations in Libya, 5th–7th century, Nat. Museum, Tripoli; mosaic, late 8th century, in situ Church of St Stephen, Umm al-Rasas, Jordan)

B: THE CALIPHATE OF CORDOBA, 9TH–10TH CENTURY

Formal military parades and elaborate ceremonial played a significant role in maintaining the prestige of the Umayyad court in Cordoba, and great efforts were made to impress visiting ambassadors. These figures are presented as if forming up for such a parade.

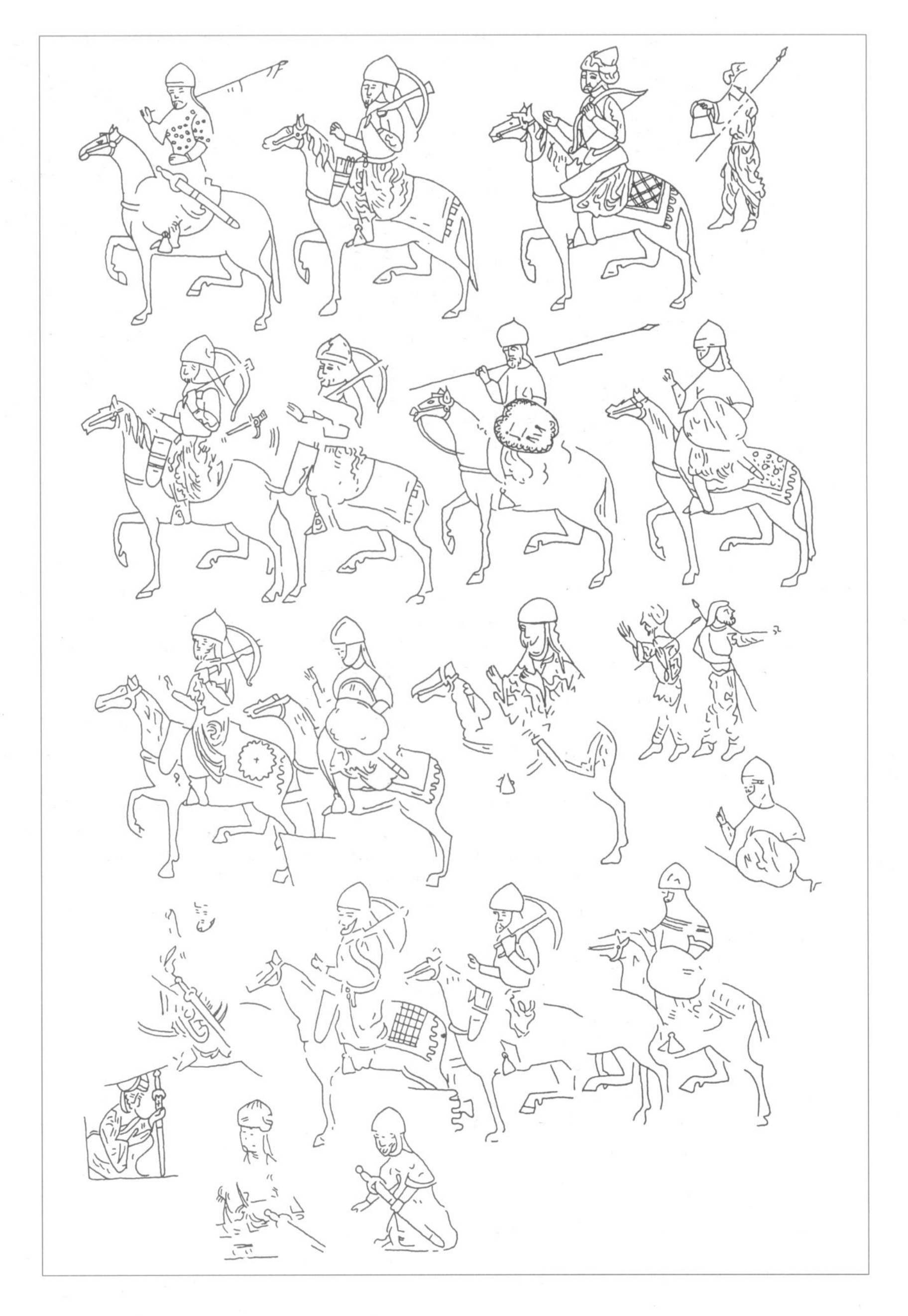
B1: Andalusian guard cavalryman, 10th century

Even in the 10th century the army of Cordoba had a great deal in common with other Western European forces. Here a trooper wears a mail *dir'* hauberk with an integral *mighfar* coif. His sword and baldric are typically Middle Eastern while the horse harness is a development of traditional Iberian forms. The *shatrang* or chequerboard banner was first seen in Andalus before being adopted by Christian military elites. (Main sources: Beatus manuscript from Tavera, AD 975, Cathedral Museum, Gerona; ivory box made for Ziyad Ibn Aflah, AD 969/70, Victoria & Albert Mus., London; Andalusian chess piece, 10th century, private collection, Frankfurt)

B2: Andalusian infantry archer, late 10th century

Infantry archers using large composite and semi-composite Arab bows formed the backbone of early Andalusian armies. The man shown here lacks mail but has been given a cotton quilted soft armour, a large single-edged dagger and a simple leather shield. (Main sources: Mozarab Bible, c. AD 960, Ms.2, Archivo, S.Isidoro, Leon, Spain; ivory from Cuenca, AD 1026, Arch. Museum, Burgos, Spain)

Some military figures from an early 14th-century wall-painting in the Torre de las Damas, in the Alhambra palace of Granada. These drawings show the figures as they were when first uncovered almost a hundred years ago; today most have faded almost beyond recognition. The main subject appears to be an army approaching some rich tents where a ruler sits with four advisers. Two of these advisers or guards carry swords with gilded pommels and drooping quillons (bottom left). Outside, most of the soldiers are mounted and are armed with crossbows or spears, though a few have swords and one carries an ordinary composite bow. The crossbowmen wear white tunics and only the standard bearer has a mail coat, plus a pointed blue and gold helmet with mail down the back. One of the cavalrymen has a shield with a broad white band on a red field, in what appears to be an unusual example of Western European heraldic influence. Elsewhere (top left) one man wears a cuirass with gold rivet heads, perhaps indicating a coat-of-plates or brigandine.



B3: Andalusian armoured cavalryman, late 10th century

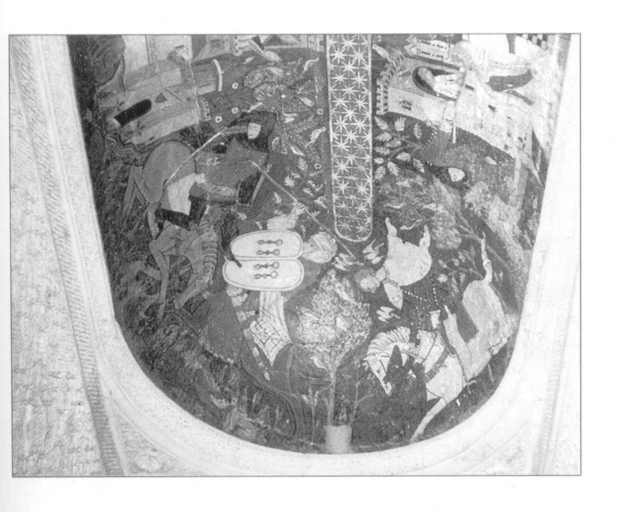
This horseman's round helmet with a broad nasal, sword with a spherical pommel and substantial winged spearhead were the same as those of his Christian foes. Other features such as the kite-shaped shield may first have been developed in Andalus. He rides with stirrups of Eastern Mediterranean form and has a *tabarzin* saddle-axe thrust into his horse's breast-strap. (Main sources: Commentaries of Gregory on Job, AD 914, Ms.83, John Rylands Lib., Manchester; ivory box made for Ziyad Ibn Aflah, AD 969/70, Victoria & Albert Mus., London; ceramic fragment from Madina al-Zahra, Inv. MA/UM-95, Site Museum, Madina Azahara, Spain; ivory box made for Abd al-Malik al-Muzaffar, AD 1005, Cathedral Treasury, Pamplona, Spain)

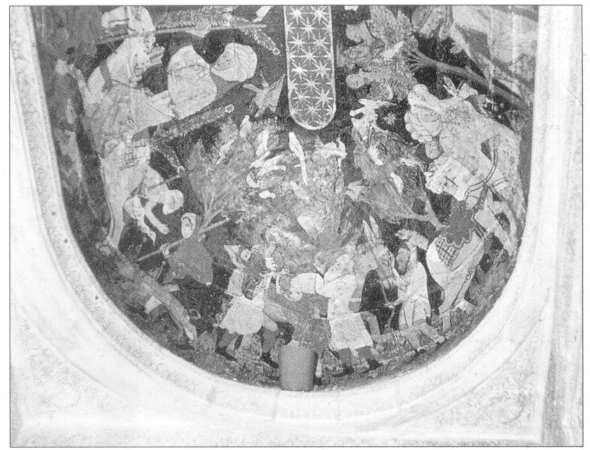
C: TAIFA ARMIES, N.AFRICA & SICILY, 11TH CENTURY

Wrestling was a form of training in Andalusia, as in other Islamic armies. The armies of most *taifa* states were very small, whereas North Africa and Islamic Sicily could field substantial forces. All shared a great deal of military technology.

C1: Sicilian archer

Pictorial and written sources indicate that the basic *dir'* mail hauberk remained the most common form of body armour. The black turban-cloth showed allegiance to the 'Abbasid Caliphs, while his sword is based upon an example found in an Islamic shipwreck. (Main sources: undated helmet from Qayrawan, Mus. of Islamic Studies, Ruqqada, Tunisia; carved ivory oliphant, 11th-century Sicily, Musée Crozatier,





While these reproductions are obviously too small for the reader to make out any detail, they are included in the hope of giving some impression of the quality and level of detail of the painted leather ceilings in the Sala de la Justicia in the Alhambra. Unlike the wall-paintings in the Torre de las Damas, whose artist was Muslim, these were probably made by a visiting Italian artist around AD 1360. The romantic story they illustrate is now unknown, but the painting shows Muslim Andalusian and Christian Spanish figures, military and civilian, male and female. In addition to a mortal combat between a Muslim 'hero' and a Christian 'villain', there is a hunting scene which includes servants, one of whom wears a *litham* face-veil. (Author's photographs)

Le Puy, France; ceramic wall decoration from Sabra, 11th century, Bardo Mus., Tunis; sword from 11th–12th-century shipwreck at Agay, Museum, St Raphael, France)

C2a, 2b: Andalusian soldiers wrestling
These figures illustrate the undergarments worn beneath both military and civilian clothes. The first wrestler has the basic light cotton shirt and loose cotton drawers seen throughout almost the whole medieval Islamic world, while the second has an embroidered panel on the back of his shirt. (Main sources: carved ivory made for Prince al-Mughira, 968 AD, Louvre Mus., Paris)

C3: North African cavalryman
Few North African cavalrymen would have been as well equipped as this soldier, with his fully armoured horse. Under a quilted *jubbah* made in the same manner as the quilted *tijfaf* horse armour he has a full mail hauberk and coif. The rest of his arms, armour and costume are again a mixture of Eastern and Western styles and traditions, though with the strongest influence coming from Egypt. (Main sources: carved basin, Andalusian 11th century, Arch. Museum, Jativa, Spain; ceramic wall-plaque from Sabra, 11th century, Bardo Museum, Tunis; carved stone relief of hunters, 11th century, Mus. Nat. des Antiquités, Algiers; ceramic fragment from Sabra, 10th–11th century, inv.11762, Benaki Mus., Athens)

D: ANDALUS & MAGRIB UNDER THE MURABITUN, LATE 11TH to MID-12TH CENTURY

The Murabit state was an African empire in the true sense of the word, incorporating a large part of north-western and sub-Saharan west Africa, as well as a substantial part of the European mainland. In this scene, however, the Andalusian D2 is resisting incorporation into this little-known African empire.

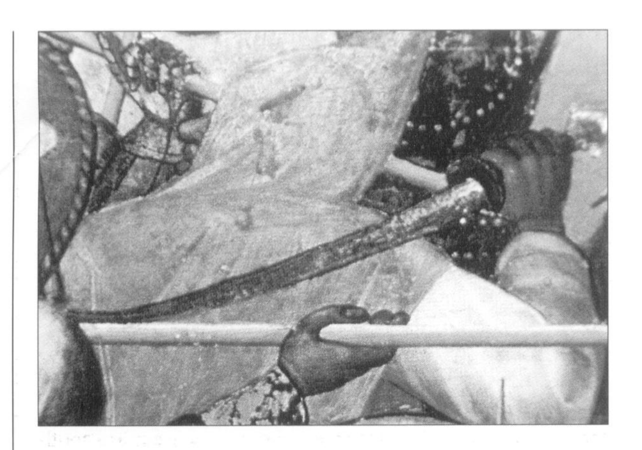
D1: Murabit cavalryman, early 12th century
The *litham* face-veil was the most striking aspect of Murabitun military costume. Otherwise this elite cavalryman's weaponry and costume already show Moroccan and Andalusian influence, though his huge leather *lamt* shield is specifically Saharan – he has dropped this and his long spear when dismounting from his wounded horse. The body armour consisting of sheets of felt is a hypothetical reconstruction based upon written descriptions and unclear illustrations. (Main sources: sword, 11th century, Mus. Eserjito, Madrid; Mozarab Psalter of San Millan de Cogola, 11th century, Library, Real Academia de la Historia, Madrid; Moors arresting St Aventinus, 12th-century carved capital, in situ Church, St Aventin, France)

D2: Andalusian crossbowman, early 12th century
A few features set this crossbowman apart from the infantry of Christian northern Iberia, the most obvious being a rudimentary turbancloth, the loose trousers beneath the mail hauberk, and the large shield with a distinctive keel down the centre. This latter is probably of leather. (Main sources: Illustrated Bible of King Sancho of Navarre, AD 1197, Ms.108, Bib. Municipale, Amiens, France; relief carvings, early/mid-12th century, in situ west front, Church of San Domingo, Soria, Spain; Mozarab wall painting from San Baudelio de Berlanga, early 12th century, Prado Museum, Madrid)

D3: Afro-Saharan archer, 12th century
Recent archaeological studies shed light on the arms, armour and costume of medieval Africa. The most interesting features are what has been interpreted as a battered helmet of Islamic origin, a wickerwork quiver worn on his back, a large bow similar to those used in ancient Egypt, and the substantial dagger strapped to his upper left arm. (Main sources: terracotta figurine, Mali, AD 1240–1460, private collection, California; wooden statuette attributed to Soninke Kagoro culture, 1320–1650, inv.83.16, Minneapolis, USA)

E: THE MUWAHHIDUN, 12TH–EARLY 13TH CENTURY

The Moroccan-based Muwahhid empire had a profound impact on the military styles of subsequent centuries. It also had a highly developed ceremonial, and may have been



A Moorish warrior in a picture of the battle of Puig on the Retaule de San Jorge. This huge altarpiece was painted between AD 1393 and 1410 in Valencian style. Its representation of Islamic troops is exceptionally realistic and accurate. The figure shown here is probably typical of the North African Berber volunteers who helped defend the frontiers of Granada. He wears a hooded *burnus*, defends himself with a typical leather *daraqa* shield, but wields a new form of slightly curved sabre which became quite widespread in Morocco during the 15th century. (Victoria & Albert Museum, London, England)



Among the priests, monks, ladies and Christian warriors on a late 15th-century Portuguese painted altar panel from S. Vicente de Fora is this very different soldier (top centre). He looks in the opposite direction to the other donor figures, while his long hair and full beard probably identify him as a Moor. The Portuguese currently occupied part of northern Spain, and although something of a mystery this figure sheds a valuable light on a very little known period of Andalusian or Moroccan arms, armour and military costume. (National Museum of Ancient Art, Lisbon, Portugal)

more acceptable to the Andalusians than the preceding Murabitun had been.

E1: Muwahhid prince, early 13th century

This figure's sword is a reconstruction of a decorated weapon from a cave in Gibraltar. The fabric of his tunic is also based upon surviving examples; the weavers of Andalus exported their textiles over a huge area. (Main sources: sword, scabbard & baldric fragments from Martin's Cave, Gibraltar, mid-12th century, inv.67.12.23.1-5, Royal Armouries, Leeds; Kitab Bayad wa Riyad, Andalusian, early 13th century, Ms.Arabe 368, Vatican Lib., Rome)

E2: Andalusian infantryman, late 12th century

This relatively light infantryman cheering his leader's entry is equipped in a manner which was common in Islamic and Christian Iberia. The single edged weapon with its long wooden grip does, however, seem typical of Iberia. His tasselled shield is distinctively 'Moorish', as is his helmet with its integral fixed visor. (Main sources: single-edged weapons from the upper city of Vittoria, 12th century, Alava Museum, Vitoria; relief carvings of arch from Church of San Vincente Martyr, Frias, Cloisters Museum, New York)

E3: Muwahhid guard cavalryman, late 12th century

This elite trooper's mail armour, helmet and sleeveless, quilted soft armour were seen in both the Islamic and Christian parts of the Iberian peninsula. His banner is essentially the same as that captured at the battle of Las Navas de Tolosa. (Main sources: banner from Las Navas de Tolosa, early 13th century, Treasury, Monastery of Las Huelgas, Burgos, Spain; Cantigas de Alfonso X, late 13th century, Library, El Escorial, Spain; Kitab al-Sufar from Ceuta, AD 1224; Ms.Ross.1033, Vatican Lib., Rome; Beatus of Liebana, c. AD 1220, Ms.429, Pierpont Morgan Lib., New York)

F: THE AGE OF DISASTER, LATE 13TH–EARLY 14TH CENTURY

The stresses between Andalusians and North Africans were exacerbated by catastrophic defeats during the 13th century. The two Muslim peoples also already differed considerably in culture and military styles, the Andalusians having copied the heavy cavalry and armoured infantry tactics of their Christian foes. Here we imagine the fallen and the fleeing on a stricken field.

F1: Andalusian cavalryman, late 13th century

This downed horseman represents the Islamic Andalusian military elite's adoption of Iberian Christian military styles. His full mail hauberk, integral mail mittens, heavy lance, heavy shield hung from a guige, deep saddle with very raised pommel and wrap-around cantle made him very different from the cavalry seen in other parts of the Islamic world. (Main sources: sword, scabbard & sword-belt, Treasury of Monastery of Las Huelgas, Burgos, Spain; Cantigas de Alfonso X, late 13th century, Library, El Escorial, Spain; Moorish garrison of Valencia during Triumphal Entry of James I, wall painting, c. AD 1300, in situ Castel d'Alcanyis)

F2: Andalusian heavy infantryman, 13th century

A similar emphasis on full protection at the expense of agility is seen in this heavily armoured footsoldier, wearing a short scale defence over a mail hauberk which probably extends beneath his kilt or skirt. (Main sources: scale cuirass & axe-head, 13th–14th century, Alava Museum, Vittoria, Spain; Cantigas de Alfonso X, late 13 cent., Library, El Escorial, Spain; Arrest of St James, wall painting, early 13th century, in situ Erminta de Santo Juan, Uncastillo, Spain)

F3: North African horseman, late 13th century

In complete contrast this North African cavalryman only has a short-sleeved mail hauberk and a distinctive leather shield.

The double binding beneath his spearhead was a long-established Arab tradition which continued in North Africa, whereas in the Middle East it was limited to Arab bedouin warriors. His saddle is an early example of a style associated with riding *'a la jinete'*. (Main sources: Cantigas de Alfonso X, late 13th century, Library, El Escorial, Spain; Moorish spurs, 13th–14th century, Museum of S Juan Duero, Soria, Spain)

F4: Baggage donkey carrying folded tents

The vital baggage animals which carried an army's supplies rarely appear in illustrated sources. (Main source: Cantigas de Alfonso X, late 13th century, Library, El Escorial, Spain)

G: THE GOLDEN TWILIGHT, 14TH CENTURY

The 14th century saw the fortunes of the westernmost parts of the Islamic world decline in the Iberian peninsula but expand in Africa. Nevertheless, the small states of North Africa drove off several attempted Crusades, and Granada preserved its independence through constant vigilance.

G1: Granadan officer, early 14th century

Granadan costume, arms and armour remained distinctive and differed from those of North Africa. This man's sword, dagger and horse-harness were made locally, though his helmet is of Middle Eastern origin. His banner reflects a persistent similarity with European heraldry, whereas the Hand of Fatima on his shield is specifically Islamic. (Main sources: dagger hilt, 14th-century Granadan, Arch. Museum, Granada; Conquest of Majorca by James I, wall painting, late 13th century, Museum of Catalan Art, Barcelona; army on the march & encamped, wall painting, early 14th century, in situ Torre de la Damas, Alhambra Palace, Granada)

G2: Granadan cavalryman, late 14th century

Here a horseman is based directly upon a painted ceiling in the Alhambra, but whether the figure represents a North African hero-prince or a member of the Granadan elite is unknown. Several written descriptions confirm the accuracy of this source, however, including the highly effective leather *daraqa* shield and the distinctive swordhilt with long quillons extending down the side of the blade. (Main source: Qadi – Judges & unknown romantic legend, painted ceilings, mid-14th century, in situ Sala de la Justicia, Alhambra Palace, Granada)

G3: North African volunteer, mid-14th century

Here a face-covering *litham* and hooded *burnus* may indicate Moroccan origins, as would the dagger strapped to his arm. The hilt of the dagger is based upon an example from Granada; his cuirass, formed of almost rigid hoops of hardened leather, is the same as examples recently discovered in the Middle East. (Main source: painted ceiling illustrating an epic-romantic legend, mid-14th century, in situ Sala de la Justicia, Alhambra Palace, Granada)

H: THE DECLINE OF GRANADA, 15TH CENTURY

Even during the 15th century Granada's highly motivated army often proved capable of destroying Christian raiders in the rugged mountains which surrounded the Granadan heartland of the fertile Vega.

H1: Granadan officer, late 15th century

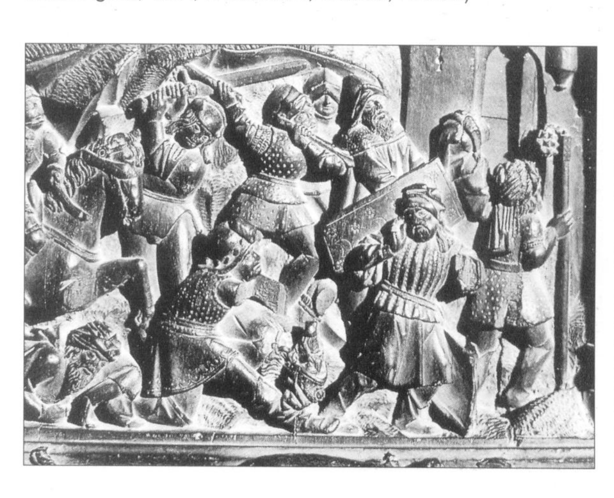
This man, shown holding H3's horse, is based upon a number of figures on a series of Portuguese painted altar panels, some with the 'Arabised' costume worn in the south of the country, while one helmeted and bearded figure may actually be a Moor. (Main sources: painted altar panels from S Vicente de Fora, Portuguese, second half of 15th century, Nat. Museum of Ancient Arts, Lisbon; Retablo de San Jorge, painted altar, Valencian 1393–1410, Victoria & Albert Museum, London)

H2: Granadan infantry crossbowman, late 15th century

Here a crossbowman aims a weapon which has features that can be traced back to the late Roman crossbow. His dagger is of the 'ear' form used on both sides of the religious frontier, while the large wooden mantlet may have been a distinctive 15th-century Granadan type. (Main sources: unknown romantic legend, painted ceiling, mid-14th century, in situ Sala de la Justicia, Alhambra Palace, Granada; Conquest of the Kingdom of Granada, carved wooden panels, late 15th century, in situ Choir of Cathedral, Toledo, Spain)

H3: Granadan armoured cavalryman, mid-15th century

This final figure is based upon engravings made by a German artist who spent some time in Spain, where he seems to have made a large number of sketches from life. These showed light armour entirely covered in decorative fabric. Whether Moorish cavalry actually used daggers of the so-called 'ballock' form, as shown in this picture, is more doubtful. (Main sources: clothing & weapons of Boabdil, Real Armeria & Museo Ejercito, Madrid, Spain; engravings by Martin Scholgauer, mid-15th century, National Gallery of Art, Washington, USA, & Museum, Colmar, France)



Work on the wooden panels in Toledo Cathedral, illustrating the conquest of the amirate of Granada, is said to have started within three or four years of the completion of the conquest. This panel shows the defeat and capture of Muhammad XII (Boabdil) at the battle of Lucena in AD 1483. One of the bearded Andalusians carries a strange staff weapon with a spiked ball attached by a chain (far right). Another carries a rectangular mantlet; while Boabdil himself (right foreground) appears to wear some form of thickly quilted jerkin or scale-lined armour. (in situ Choir of the Cathedral, Toledo, Spain)